

September 30, 2004

State of Utah
Division of Oil, Gas & Mining
Attn: Diana Whitney
1594 West North Temple - Suite 1210
P.O. Box 145801
Salt Lake City, Utah 84114-5801

RE: Applications for Permit to Drill:

Federal 3-33-8-18
Federal 4-33-8-18
Federal 5-33-8-18
Federal 6-33-8-18
Federal 7-33-8-18
Federal 9-33-8-18
Federal 10-33-8-18
Federal 11-33-8-18

Jana Debeker

OCT 0 4 2004

DIV. OF OIL, GAS & MINING

#### Dear Diana:

Enclosed find APD's on the above referenced wells. The 8-13-9-16 and 13-13-9-16 are Exception Locations. I have contacted our Land Department in the Denver office and they will be providing you with the appropriate Exception Location Letters. If you have any questions, feel free to give either Brad or myself a call.

Sincerely,

Lana Nebeker
Production Clerk

enclosures

Form 3160-3 (September 2001)		FORM APPRO OMB No. 1004 Expires January	4-0136			
UNITED STATES DEPARTMENT OF THE IN BUREAU OF LAND MANAG		5. Lease Serial No. UTU-65969				
APPLICATION FOR PERMIT TO DR		6. If Indian, Allottee or T	ribe Name			
All LIOATION ON LAMIN TO DI		N/A				
1a. Type of Work: DRILL REENTER	7. If Unit or CA Agreemen	nt, Name and No.				
			N/A	<u> </u>		
1b. Type of Well: 🖾 Oil Well 🚨 Gas Well 🚨 Other	Single Zone  Multip	ole Zone	8. Lease Name and Well N Federal 11-33-8-1			
2. Name of Operator			9. API Well No.			
Newfield Production Company			43-047-3	5972		
3a. Address	3b. Phone No. (include area code)		10. Field and Pool, or Explo			
Route #3 Box 3630, Myton UT 84052	(435) 646-3721		Eight Mile F	1at North		
4. Location of Well (Report location clearly and in accordance with a	any State requirements.*)		11. Sec., T., R., M., or Blk.	and Survey or Area		
At surface NE/SW 2131' FSL 2079' FWL 593822	× 40.073008		NE/SW Sec. 33, To	8S R18F		
At proposed prod. zone 443623	oy -109.899727					
14. Distance in miles and direction from nearest town or post office*	. Distance in miles and direction from nearest town or post office*					
Approximatley 22.6 miles south of Myton, Utah			Uintah	UT		
15. Distance from proposed* location to nearest	17. Spacing	g Unit dedicated to this well				
property or lease line, ft. (Also to nearest drig, unit line, if any)  Approx. 509' f/lse, 3201'f/unit	360.00		40 Acres			
18. Distance from proposed location* to nearest well, drilling, completed,	19. Proposed Depth	20. BLM/E	BIA Bond No. on file			
applied for, on this lease, ft.  Approx. 1221'	6500'		UTU0056			
21. Elevations (Show whether DF, KDB, RT, GL, etc.)	22. Approximate date work will sta	rt*	23. Estimated duration			
4902.7' GL	1st Quarter 2005		Approximately seven (7) days from s	oud to rig release.		
	24. Attachments					
The following, completed in accordance with the requirements of Onshor	e Oil and Gas Order No.1, shall be att	ached to this	form:			
1. Well plat certified by a registered surveyor.		ne operation	ns unless covered by an exist	ing bond on file (see		
2. A Drilling Plan.	Item 20 above).  5. Operator certific	ation.				
3. A Surface Use Plan (if the location is on National Forest System SUPO shall be filed with the appropriate Forest Service Office).	6. Such other site authorized office	specific info	ormation and/or plans as ma	y be required by the		
25. Signature	Name (Printed/Typed)		Date	0 22 11		
Jana Geleku	Lana Nebeker		<u></u>	9:50:09		
Production Clerk						
Approved by Signature	Name (Printed/Typed)		Dat	e .		
R. W.W.	BRADLEY	C LIII	1.6	1-06-04		
Till	OENVIRONMENTAL	SCIENTI:	L C			
	i					
Application approval does not warrant or certify the the applicant holds le operations thereon.  Conditions of approval, if any, are attached.	gal or equitable title to those rights in	the subject l	ease which would entitle the	applicant to conduct		
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it States any false, fictitious or fraudulent statements or representations as to	a crime for any person knowingly and any matter within its jurisdiction.	d willfully to	o make to any department or	agency of the United		

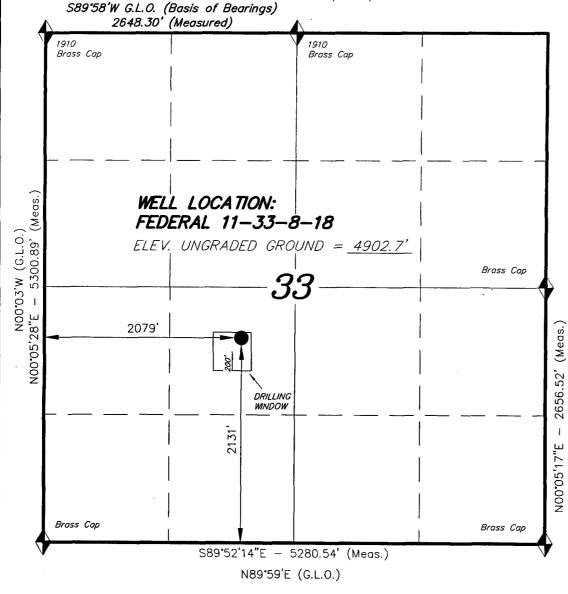
\*(Instructions on reverse)

Action is Necessary

RECEIVED OCT 0 4 2004

# T8S, R18E, S.L.B.&M.

\$89.58'W - 80.02 (G.L.O.)



= SECTION CORNERS LOCATED

BASIS OF ELEV; U.S.G.S. 7-1/2 min QUAD (PARIETTE DRAW SW)

#### INLAND PRODUCTION COMPANY

WELL LOCATION, FEDERAL 11-33-8-18, LOCATED AS SHOWN IN THE NE 1/4 SW 1/4 OF SECTION 33, T8S, R18E, S.L.B.&M. UINTAH COUNTY, UTAH.



THIS IS TO CERTIFY THAT OTHE ABOVE PLAT WAS PREPARED FROM FIELD OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPPRISON AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST O MY KNOWLEDGE AND FALIEF No.189377

REGISTER D LAND SURVEYOR REGISTRA RONING.

## TRI STATE LAND SURVEYING & CONSULTING

180 NORTH VERNAL AVE. - VERNAL, UTAH 84078 (435) 781-2501

SCALE: 1" = 1000'	SURVEYED BY: C.M.
DATE: 8-27-04	DRAFTED BY: F.T.M.
NOTES:	FILE #

## NEWFIELD PRODUCTION COMPANY FEDERAL 11-33-8-18 NE/SW SECTION 33, T8S, R18E UINTAH COUNTY, UTAH

#### ONSHORE ORDER NO. 1

#### DRILLING PROGRAM

#### 1. GEOLOGIC SURFACE FORMATION:

Uinta formation of Upper Eocene Age

#### 2. ESTIMATED TOPS OF IMPORTANT GEOLOGIC MARKERS:

Uinta 0' – 1640' Green River 1400' Wasatch 5965'

#### 3. ESTIMATED DEPTHS OF ANTICIPATED WATER, OIL, GAS OR MINERALS:

Green River Formation 1400' - 5965' - Oil

#### 4. PROPOSED CASING PROGRAM

Please refer to the Monument Butte Field Standard Operation Procedure (SOP).

#### 5. MINIMUM SPECIFICATIONS FOR PRESSURE CONTROL:

Please refer to the Monument Butte Field SOP. See Exhibit "C".

#### 6. TYPE AND CHARACTERISTICS OF THE PROPOSED CIRCULATION MUDS:

Please refer to the Monument Butte Field SOP.

#### 7. AUXILIARY SAFETY EQUIPMENT TO BE USED:

Please refer to the Monument Butte Field SOP.

#### 8. TESTING, LOGGING AND CORING PROGRAMS:

Please refer to the Monument Butte Field SOP.

#### 9. ANTICIPATED ABNORMAL PRESSURE OR TEMPERATURE:

The anticipated maximum bottom hole pressure is 2000 psi. It is not anticipated that abnormal temperatures will be encountered.

#### 10. ANTICIPATED STARTING DATE AND DURATION OF THE OPERATIONS:

Please refer to the Monument Butte Field SOP.

## NEWFIELD PRODUCTION COMPANY FEDERAL #11-33-8-18 NE/SW SECTION 33, T8S, R18E UINTAH COUNTY, UTAH

#### ONSHORE ORDER NO. 1

#### MULTI-POINT SURFACE USE & OPERATIONS PLAN

#### 1. EXISTING ROADS

See attached Topographic Map "A"

To reach Newfield Production Company well location site Federal #11-33-8-18 located in the SW 1/4 SE 1/4 Section 33, T8S, R18E, Uintah County, Utah:

Proceed southwesterly out of Myton, Utah along Highway 40 - 1.6 miles  $\pm$  to the junction of this highway and UT State Hwy 53; proceed southeasterly along Hwy 53 - 13.8 miles  $\pm$  to it's junction with an existing dirt road to the north; proceed northerly  $\pm$  0.3 miles to it's junction with an existing road to the east; proceed northeasterly  $\pm$  7.3 miles; proceed easterly along the existing access road 0.2 miles+ to the proposed well location.

#### 2. PLANNED ACCESS ROAD

See Topographic Map "B" for the location of the proposed access road.

#### 3. LOCATION OF EXISTING WELLS

Refer to Exhibit "B".

#### 4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES

Please refer to the Monument Butte Field Standard Operating Procedure (SOP).

#### 5. LOCATION AND TYPE OF WATER SUPPLY

Please refer to the Monument Butte Field SOP. See Exhibit "A".

#### 6. SOURCE OF CONSTRUCTION MATERIALS

Please refer to the Monument Butte Field SOP.

#### 7. METHODS FOR HANDLING WASTE DISPOSAL

Please refer to the Monument Butte Field SOP.

#### 8. <u>ANCILLARY FACILITIES</u>

Please refer to the Monument Butte Field SOP.

#### 9. WELL SITE LAYOUT

See attached Location Layout Diagram.

#### 10. PLANS FOR RESTORATION OF SURFACE

Please refer to the Monument Butte Field SOP.

#### 11. SURFACE OWNERSHIP - Bureau Of Land Management

#### 12. OTHER ADDITIONAL INFORMATION

The Archaeological Resource Survey and Paleontological Resource Survey for this area are attached. MOAC Report #03-154, 02/3/04. Paleontological Resource Survey prepared by, Wade E. Miller, 5/12/04. See attached report cover pages, Exhibit "D".

#### Reserve Pit Liner

A 12 mil liner with felt to be used if blasting is required. Please refer to the Monument Butte Field SOP.

#### **Location and Reserve Pit Reclamation**

Please refer to the Monument Butte Field SOP.

The following seed mixture will be used on the topsoil stockpile, to the recontoured surface of the reserve pit, and for final reclamation: (All poundages are in pure live seed)

Gardners Salt Bush

Atriplex Gardner

4 lbs/acre

Mat Saltbush

Atriplex Gardneri

4lbs/acre

Crested Wheat Grass

4lbs/acre

#### **Details of the On-Site Inspection**

The proposed Federal #11-33-8-18 was on-sited on 5/20/04. The following were present; Brad Mecham (NewfieldProduction), David Gerbig (Newfield Production), Byron Tolman (Bureau of Land Management). Weather conditions were clear.

#### 13. LESSEE'S OR OPERATORS REPRESENTATIVE AND CERTIFICATION

#### Representative

Name:

Brad Mecham

Address:

Route #3 Box 3630

Myton, UT 84052

Telephone:

(435) 646-3721

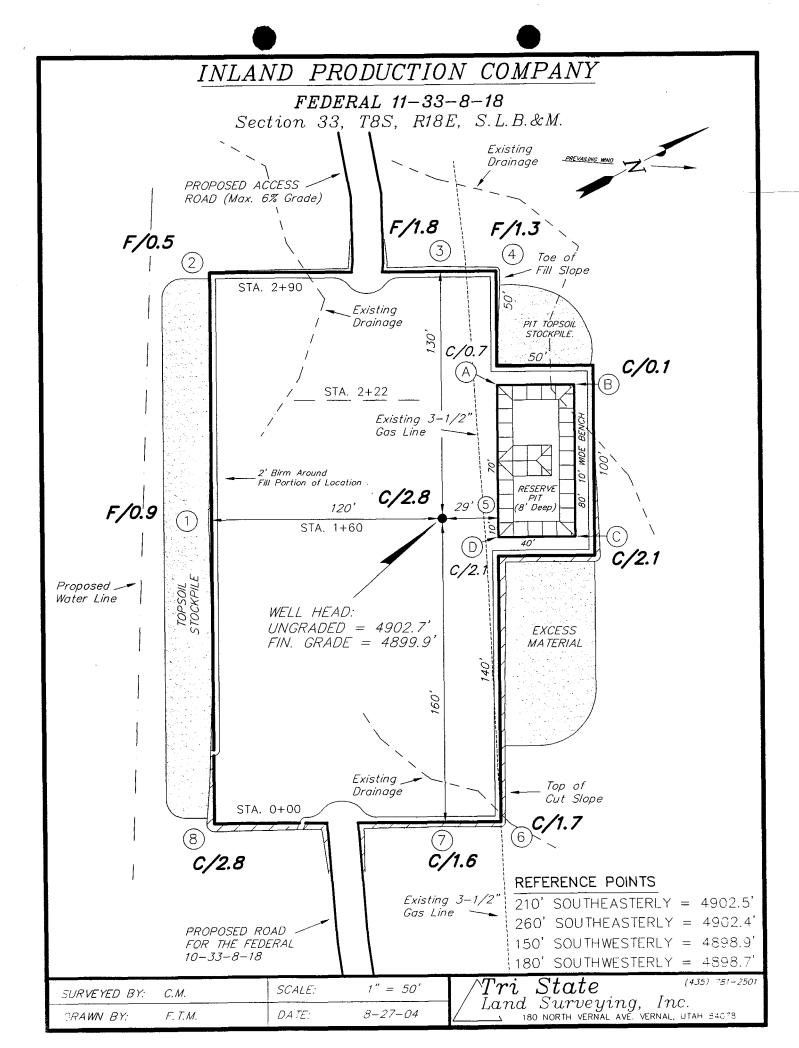
#### **Certification**

Please be advised that NEWFIELD PRODUCTION COMPANY is considered to be the operator of well #11-33-8-18 NE/SW Section 33, Township 8S, Range 18E: Lease UTU-65969 Uintah County, Utah: and is responsible under the terms and conditions of the lease for the operations conducted upon the leased lands. Bond coverage is provided by Hartford Accident #4488944.

I hereby certify that the proposed drillsite and access route have been inspected, and I am familiar with the conditions which currently exist; that the statements made in this plan are true and correct to the best of my knowledge; and that the work associated with the operations proposed here will be performed by Newfield Production Company and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.

Date

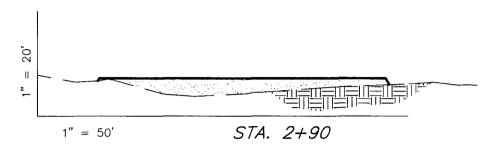
Laria Nebeker
Production Clerk

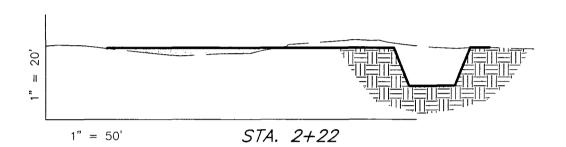


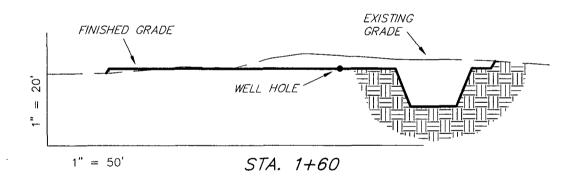
# INLAND PRODUCTION COMPANY

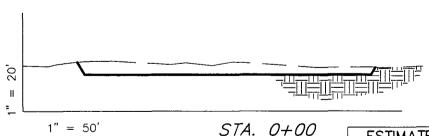
# CROSS SECTIONS

# FEDERAL 11-33-8-18









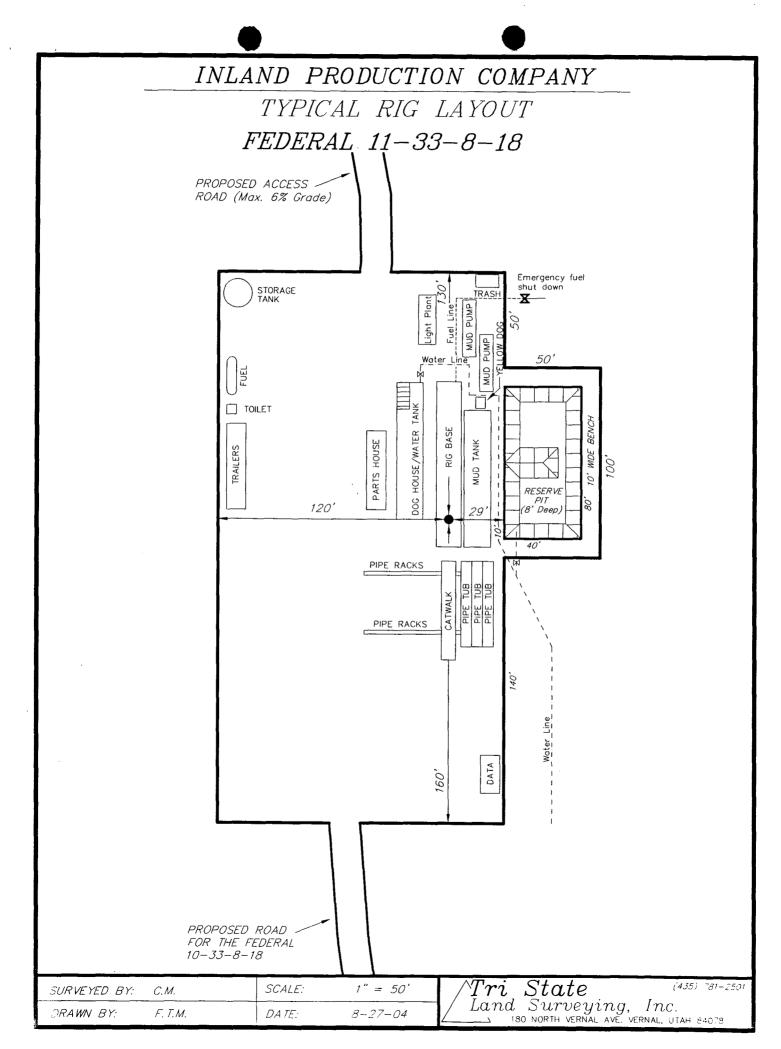
NOTE: UNLESS OTHERWISE NOTED ALL CUT/FILL SLOPES ARE AT 1.5:1

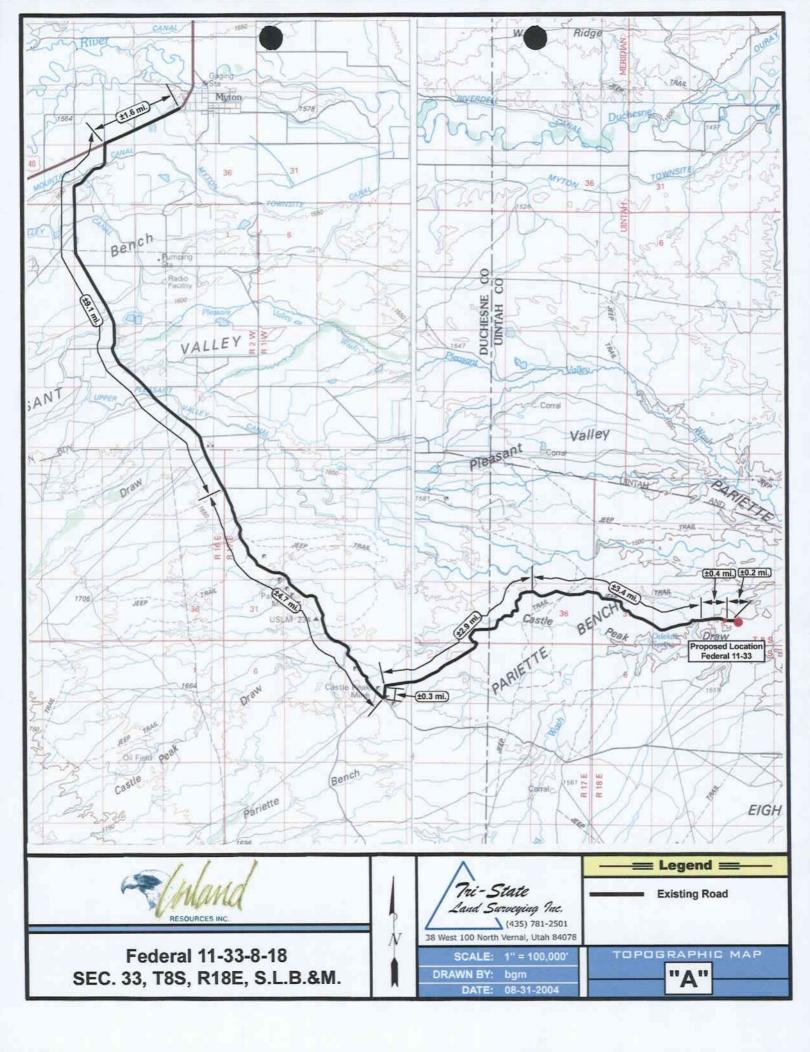
# ESTIMATED EARTHWORK QUANTITIES (No Shrink or swell adjustments have been used) (Expressed in Cubic Yards)

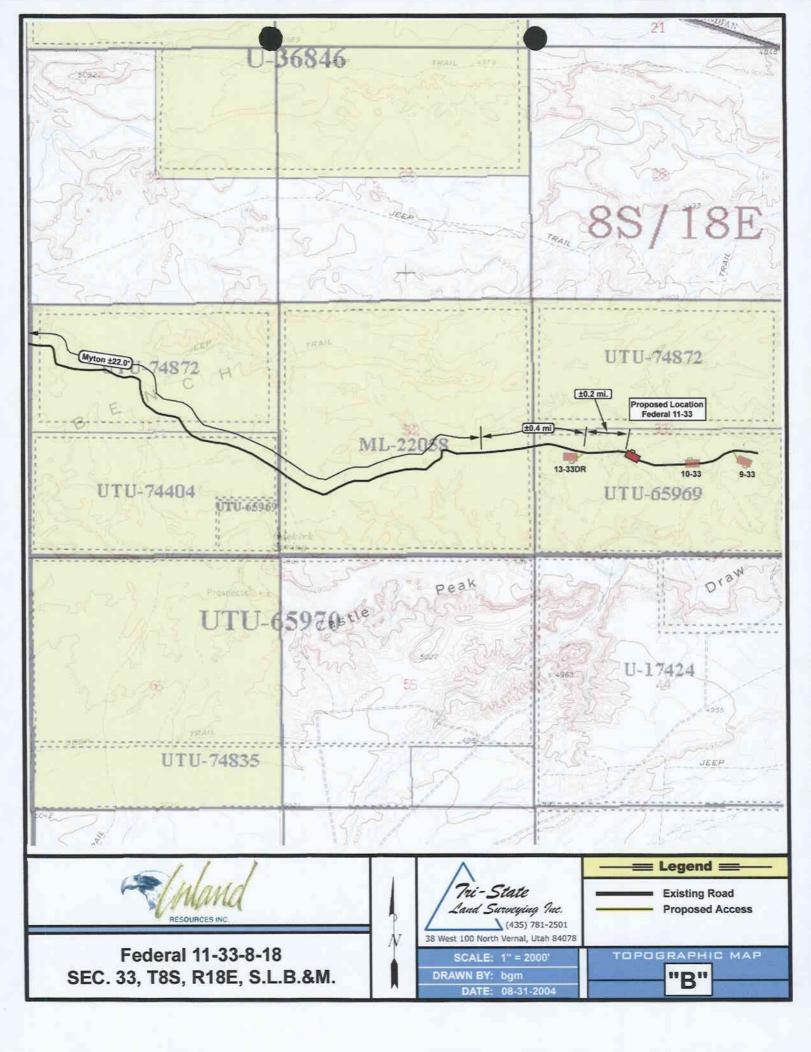
ITEM	CUT	FILL	6" TOPSOIL	EXCESS
PAD	1,030	1,030	Topsoil is not included	0
PIT	640	0	in Pad Cut	640
TOTALS	1,670	1,030	890	640

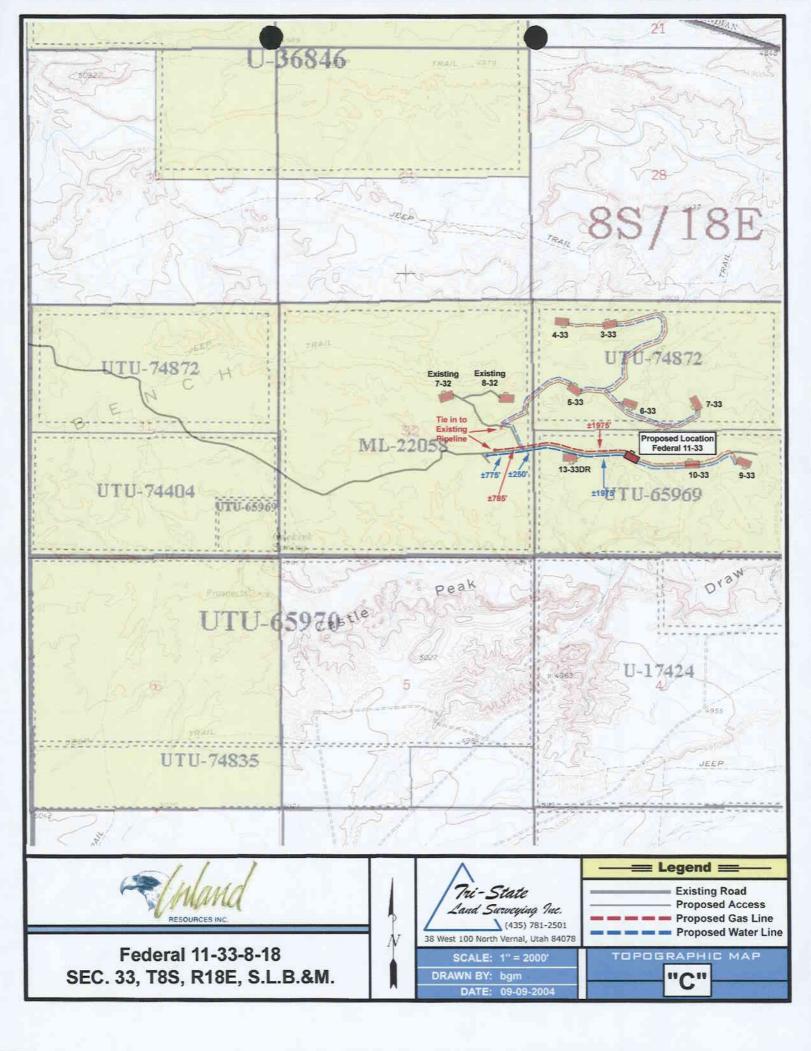
SURVEYED BY:	C.M.	SCALE:	1" = 50'
DRAWN BY:	F. T.M.	DATE:	8-27-04

 $igwedge Tri State igwedge Land Surveying, Inc. \ igwedge 180$  NORTH VERNAL AVE. VERNAL, UTAH 84078

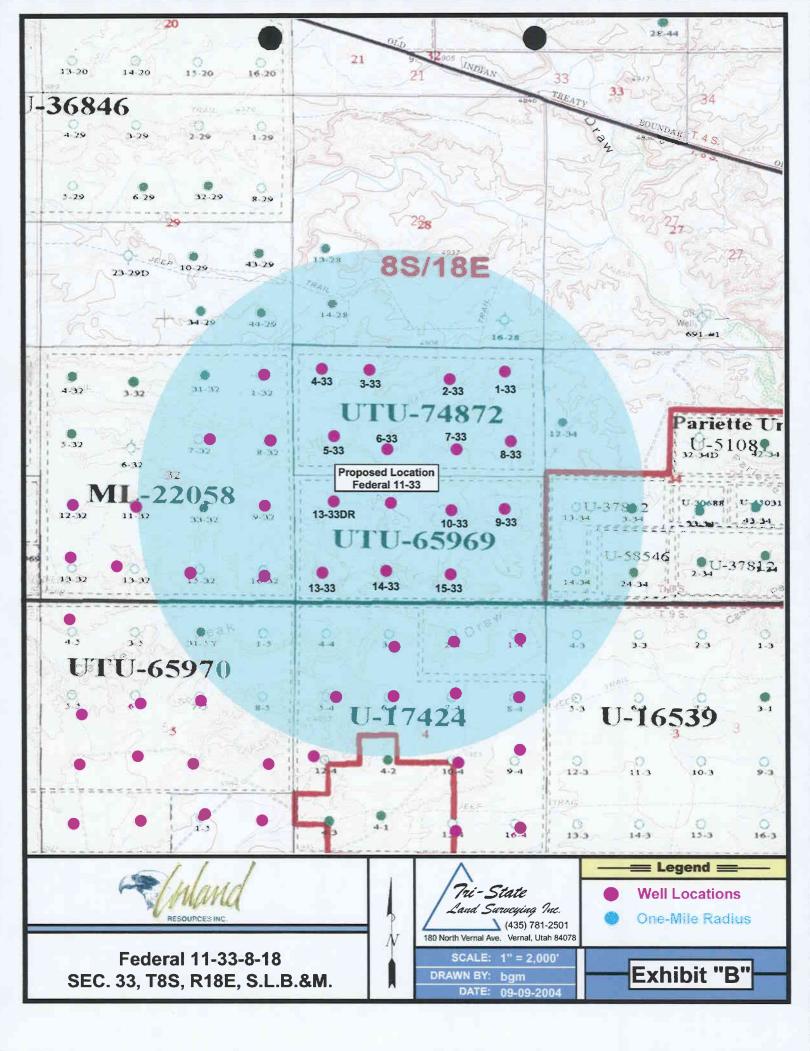






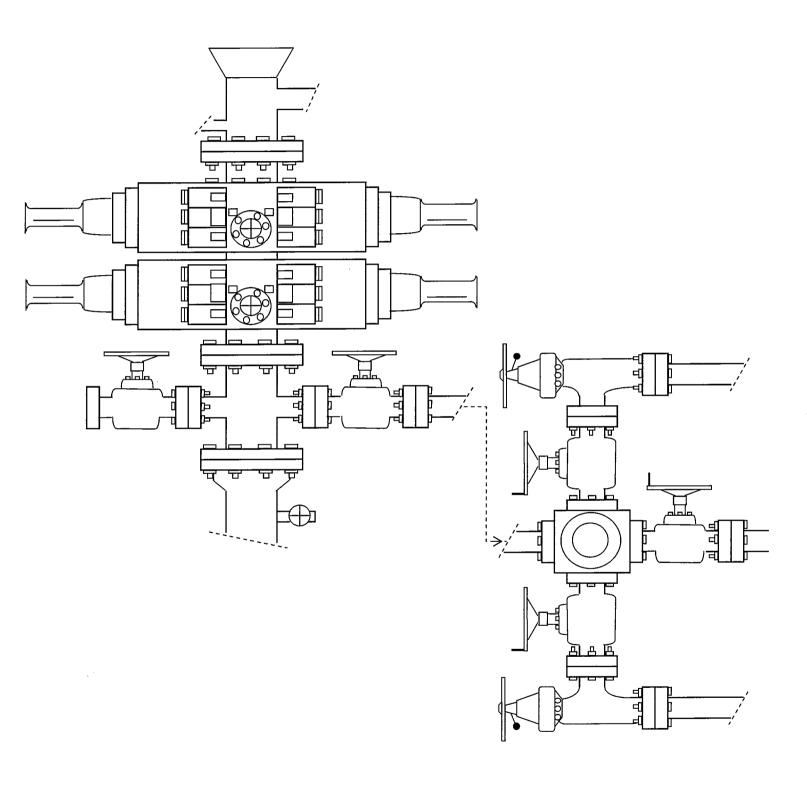


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_	THE	S-PHSE-			5	T183-R	10E,	2	4			T103-R	17E		2	1	Alamo Pitra Dallaing 1891 1701 Book Halle Dec Director of course Halle 11 Phone: 43rd 983-6104	C A TO COMMENT



# 2-M SYSTEM

**Blowout Prevention Equipment Systems** 



**EXHIBIT C** 

Exhibit D"
page 1 of 4

CULTURAL RESOURCE INVENTORY OF INLAND PRODUCTIONS PARCEL IN T 8 S, R18 E, SEC. 33 AND T 9 S, R 18 E, SEC. 3 & 4, UINTAH COUNTIES, UTAH

BY:

Katie Simon and Keith R. Montgomery

Prepared For:

Bureau of Land Management Vernal Field Office

Prepared Under Contract With:

Inland Production Route 3, Box 3630 Myton, UT 84052

Prepared By:

Montgomery Archaeological Consultants P.O. Box 147 Moab, Utah 84532

MOAC Report No. 03-154

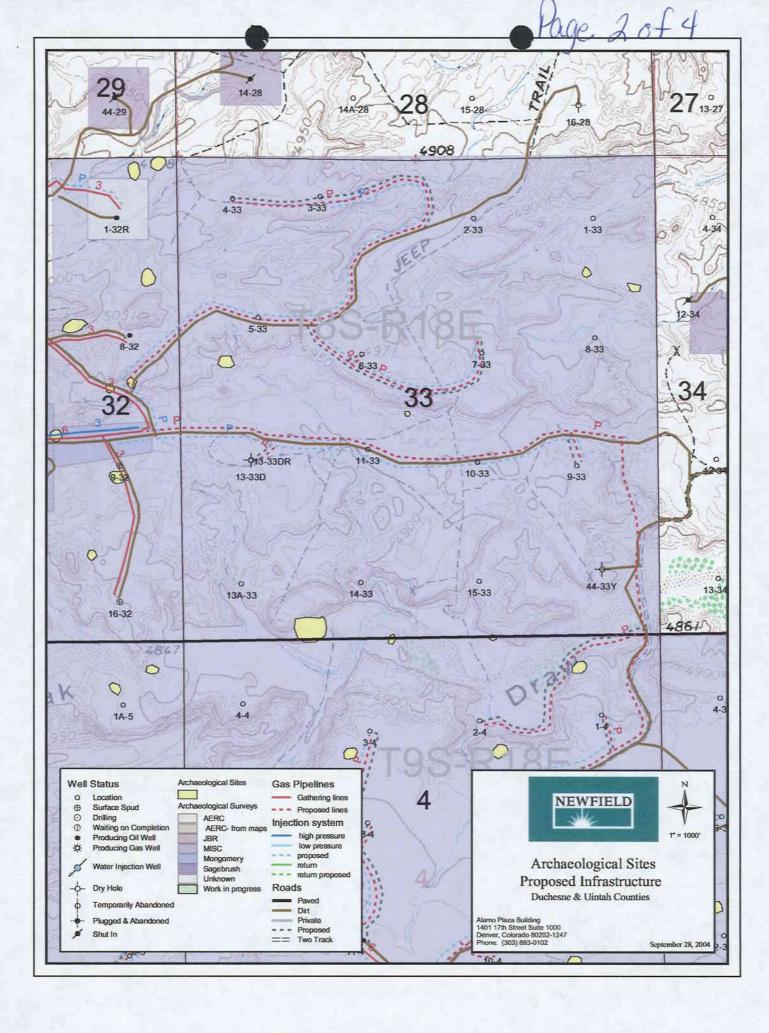
February 3, 2004

United States Department of Interior (FLPMA)

Permit No. 03-UT-60122

State of Utah Antiquities Project (Survey)

Permit No. U-03-MQ-0799b



Page 30f4

#### INLAND RESOURCES, INC.

# PALEONTOLOGICAL FIELD SURVEY OF PROPOSED PRODUCTION DEVELOPMENT AREAS, UINTAH COUNTY, UTAH

(Section 33, T 8 S, R 18 E; & Section 6, T 9 S, R 19 E)

#### REPORT OF SURVEY

Prepared for:

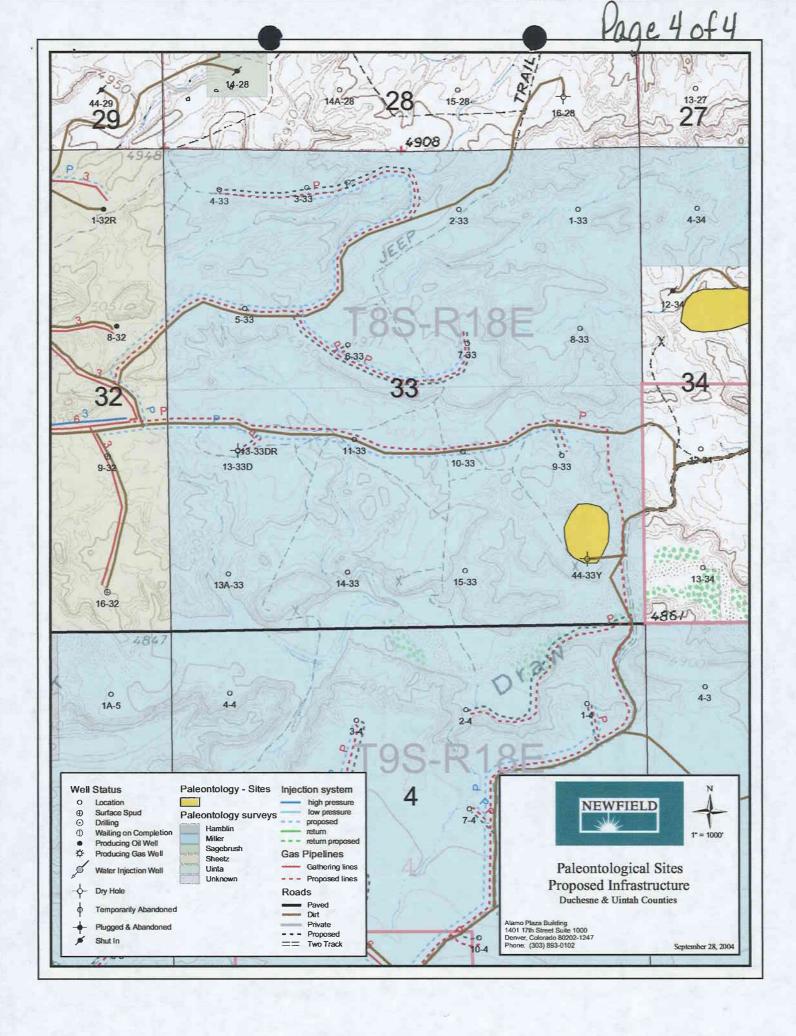
Inland Resources, Inc.

Prepared by:

Wade E. Miller

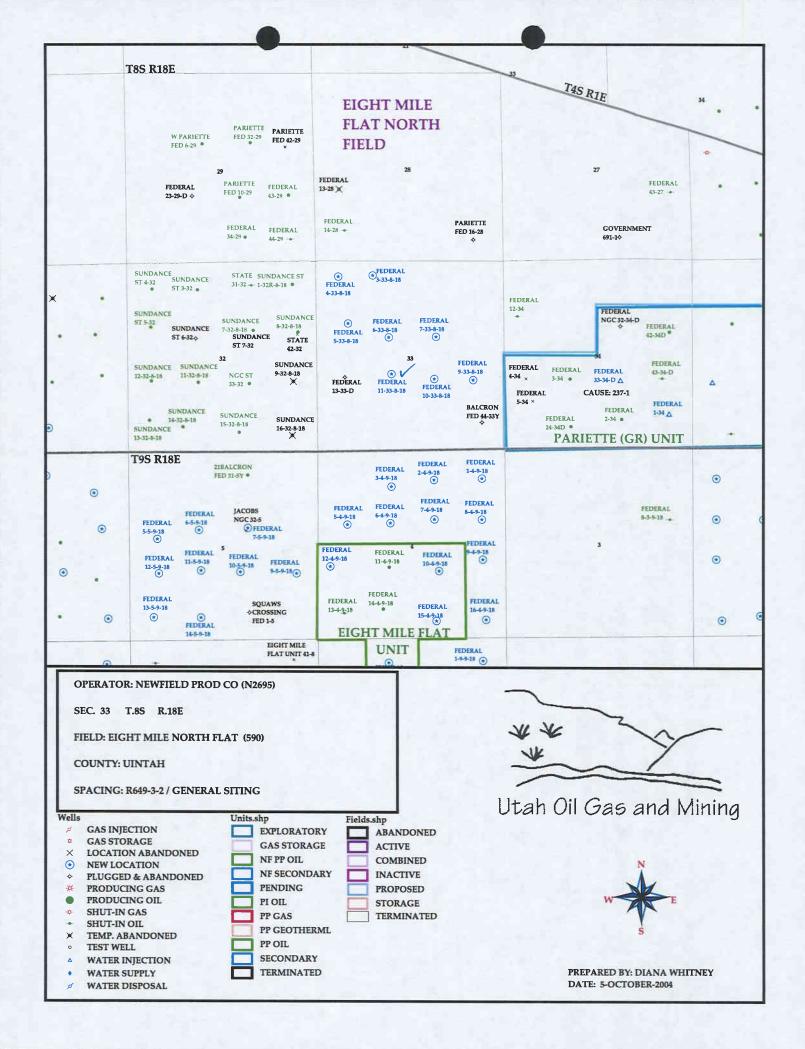
Consulting Paleontologist

May 12, 2004



# WORKSHEET APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 10/04/2004	API NO. ASSIGNED: 43-047-35972
WELL NAME: FEDERAL 11-33-8-18  OPERATOR: NEWFIELD PRODUCTION ( N2695 )  CONTACT: LANA NEBEKER  PROPOSED LOCATION:  NESW 33 080S 180E  SURFACE: 2131 FSL 2079 FWL  BOTTOM: 2131 FSL 2079 FWL  UINTAH  8 MILE FLAT NORTH ( 590 )  LEASE TYPE: 1 - Federal  LEASE NUMBER: UTU-65969  SURFACE OWNER: 1 - Federal  PROPOSED FORMATION: GRRV  COALBED METHANE WELL? NO	PHONE NUMBER: 435-646-3721  INSPECT LOCATN BY: / /  Tech Review Initials Date  Engineering  Geology  Surface  LATITUDE: 40.07301  LONGITUDE: -109.8997
RECEIVED AND/OR REVIEWED:  Plat  Bond: Fed[1] Ind[] Sta[] Fee[]  (No. UTU0056 )  Potash (Y/N)  Oil Shale 190-5 (B) or 190-3 or 190-13  Water Permit  (No. MUNICIPAL )  NOR RDCC Review (Y/N)  (Date:)  NA Fee Surf Agreement (Y/N)	LOCATION AND SITING:  R649-2-3.  Unit  R649-3-2. General         Siting: 460 From Qtr/Qtr & 920' Between Wells  R649-3-3. Exception  Drilling Unit         Board Cause No:         Eff Date:         Siting:  R649-3-11. Directional Drill
	fice 2prova()





State of Utah

Department of Natural Resources

ROBERT L. MORGAN Executive Director

Division of Oil, Gas & Mining

LOWELL P. BRAXTON
Division Director

OLENE S. WALKER
Governor

GAYLE F. McKEACHNIE Lieutenant Governor

October 6, 2004

Newfield Production Company Rt. #3, Box 3630 Myton, UT 84052

Re:

Federal 11-33-8-18 Well, 2131' FSL, 2079' FWL, NE SW, Sec. 33, T. 8 South,

R. 18 East, Uintah County, Utah

#### Gentlemen:

Pursuant to the provisions and requirements of Utah Code Ann.§ 40-6-1 et seq., Utah Administrative Code R649-3-1 et seq., and the attached Conditions of Approval, approval to drill the referenced well is granted.

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date. The API identification number assigned to this well is 43-047-35972.

Sincerely,

John R. Baza

Associate Director

pab Enclosures

cc: Uintah County Assessor

Bureau of Land Management, Vernal District Office

Operator:	Newfiel Newfiel	d Production Company	
Well Name & Number	Federal	11-33-8-18	
API Number:	43-047-	35972	
Lease:	UTU-6:	5969	
Location: NE SW	Sec. 33_	T. 8 South	<b>R.</b> _18 East

#### **Conditions of Approval**

#### 1. General

Compliance with the requirements of Utah Admin. R. 649-1 *et seq.*, the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

#### 2. Notification Requirements

Notify the Division within 24 hours of spudding the well.

Contact Carol Daniels at (801) 538-5284.

Notify the Division prior to commencing operations to plug and abandon the well.

• Contact Dan Jarvis at (801) 538-5338

#### 3. Reporting Requirements

All required reports, forms and submittals will be promptly filed with the Division, including but not limited to the Entity Action Form (Form 6), Report of Water Encountered During Drilling (Form 7), Weekly Progress Reports for drilling and completion operations, and Sundry Notices and Reports on Wells requesting approval of change of plans or other operational actions.

- 4. State approval of this well does not supersede the required federal approval, which must be obtained prior to drilling.
- 5. This proposed well is located in an area for which drilling units (well spacing patterns) have not been established through an order of the Board of Oil, Gas and Mining (the "Board"). In order to avoid the possibility of waste or injury to correlative rights, the operator is requested, once the well has been drilled, completed, and has produced, to analyze geological and engineering data generated therefrom, as well as any similar data from surrounding areas if available. As soon as is practicable after completion of its analysis, and if the analysis suggests an area larger than the quarter-quarter section upon which the well is located is being drained, the operator is requested to seek an appropriate order from the Board establishing drilling and spacing units in conformance with such analysis by filing a Request for Agency Action with the Board.

ORM 3160-5 (June 1990)

NITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

4356463031

FORM	APPROVE	0
Budget	Burcau No.	1004-0135

	Budget Bureau No. 1004-0135
	Expires: March 51, 1993
5.	Lense Designation and Serial No.

UT	'U-65969	

SUNDRY NOTICES AND REPORTS ON WELLS 6. If Indian, Allottee or Tribe Name Do not use this form for proposals to drill or to deepen or reentry a different reservoir. Use "APPLICATION FOR PERMIT -" for such proposals 7. If Unit or CA, Agreement Designation SUNDANCE SUBMIT IN TRIPLICATE I. Type of Well R. Well Name and No. Oil X FEDERAL 11-33-8-18 Well 9, API Wall No. 43-047-35972 2. Name of Operator 10. Field and Pool, or Exploratory Area NEWFIELD PRODUCTION COMPANY **8 MILE FLAT NORTH** 3. Address and Telephone No. Rt. 3 Box 3630, Myton Utah, 84052 435-646-3721 11. County or Parish, State 4. Location of Well (Fontage, Sec., T., R., m., or Survey Description) UINTAIL COUNTY, UT. NE/SW Section 33, T8S R18E 2131 FSL 2079 FWL

12. CHECK APPROPRIATE BOX(s)	TO INDICATE NATURE OF NOTICE, REPO	RT, OR OTHER DATA				
TYPE OF SUBMISSION	TYPE OF ACTION					
X Notice of Intent Subsequent Report Final Abandonment Notice	Abandenment Recompletion Plugging Back Casing Repair Altering Casing Other Permit Extension	Change of Plans New Construction Non-Routine Fracturing Water Shut-Off Conversion to Injection Dispuse Water (Note: Report results of multiple completion on Well Completion or Resumpletion Report and Log form.)				

Newfield Production Company requsts to extend the Permit to Drill this well for one year. The original approval date was 10/6/04 (expiration 10/6/05).

This APD has not been approved yet by the BLM.

CC; Ulah DOGM

Approved by the Utah Division of Oil, Gas and Mining

RECEIVED OCT 1 1 2005

DIV. OF OIL, GAS & MINING

14. I hereby certify that the force 10/11/2005 Regulatory Specialist Title Date Signed CC: UTAH DOOM (This space for Federal or State office use) Title Date Approved by Conditions of approval, if any:

Title 18 (183). Segtion 1001, unikes it a crime for any person knowingly and willfully to make to any detraction or accuse of the United States on Take, licitions or fradulem statements or representations as to any matter within as jurisdictive,

<sup>1).</sup> Describe Proposed or Completed Operations (Clearly state all pertinant details, and give pertinent dates, including assimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work. If



## Application for Permit to Drill Request for Permit Extension Validation

INLAND

(this form should accompany the Sundry Notice requesting permit extension)

API: 43-047-35972  Well Name: Federal 11-33-8-18  Location: NE/SW Section 33, T8S R18E  Company Permit Issued to: Newfield Production Company  Date Original Permit Issued: 10/6/2004				
The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that the information as submitted in the previously approved application to drill, remains valid and does not require revision.				
Following is a checklist of some items related to the application, which should be verified.				
If located on private land, has the ownership changed, if so, has the surface agreement been updated? Yes□No□ ∩∩				
Have any wells been drilled in the vicinity of the proposed well which would affect the spacing or siting requirements for this location? Yes□No ☑				
Has there been any unit or other agreements put in place that could affect the permitting or operation of this proposed well? Yes□ No ☑				
Have there been any changes to the access route including ownership, or right-of-way, which could affect the proposed location? Yes□No ☑				
Has the approved source of water for drilling changed? Yes□No☑				
Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation? Yes \(\Boxed{\omega}\) No \(\omega\)				
Is bonding still in place, which covers this proposed well? Yes ☑ No ☐				
Whanks Cupin 10/10/2005 Signature Date				
Title: Regulatory Specialist				
Representing: Newfield Production Company				

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Form 3160-3 (September 2001)

UNITED STATES

FORM APPROVED OMB No. 1004-0136 Expires January 31, 2004

DEPARTMENT OF THE IN BUREAU OF LAND MANAG	Lease Serial No.     UTU-65969      If Indian, Allottee or Tribe Name     N/A					
APPLICATION FOR PERMIT TO DE						
la. Type of Work: DRILL REENTE	7. If Unit or CA Agreement, Name and No. N/A					
lb. Type of Well: ☑ Oil Well ☐ Gas Well ☐ Other	8. Lease Name and Well No. Federal 11-33-8-18					
Name of Operator     Newfield Production Company			·	9. API Well No.	5972	
Route #3 Box 3630, Myton UT 84052		io. (include area code) 46-3721		10. Field and Pool, or Exploratory		
4. Location of Well (Report location clearly and in accordance with	any State req	uirements.*)		11. Sec., T., R., M., or Blk. a	and Survey or Area	
At surface NE/SW 2131' FSL 2079' FWL At proposed prod. zone	NE/SW Sec. 33, T8S R18E					
14. Distance in miles and direction from nearest town or post office*	12. County or Parish	13. State				
Approximatley 22.6 miles south of Myton, Utah	Uintah	UT				
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) Approx. 509' f/lse, 3201'f/unit		Acres in lease	17. Spacin	ng Unit dedicated to this well 40 Acres		
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. Approx. 1221'	19. Propos	ed Depth	20. BLM/	BIA Bond No. on file		
21. Elevations (Show whether DF, KDB, RT, GL, etc.)	22. Approx	rimate date work will sta	rt*	23. Estimated duration		
4902.7' GL	1st Quarter 2005			Approximately seven (7) days from spud to rig release.		
	24. Atta	chments			•	
The following, completed in accordance with the requirements of Onshor	re Oil and Ga	Order No.1, shall be att	ached to thi	s form:		
<ol> <li>Well plat certified by a registered surveyor.</li> <li>A Drilling Plan.</li> <li>A Surface Use Plan (if the location is on National Forest System SUPO shall be filed with the appropriate Forest Service Office).</li> </ol>	Lands, the	Item 20 above). 5. Operator certific	ation. specific inf	ns unless covered by an existi ormation and/or plans as may		
25. Signature ma le leeks		e (Printed/Typed) na Nebeker		Date	9-30-04	
Production Clerk					· .	
Approving (Signature)	Nam	e (Printed/Typed)		Pate	109/2009	

Application approval does not warrant or certify the the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Conditions of approval, if any, are attached.

Assistant Field Manager Mineral Resources

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

\*(Instructions on reverse)

NOTICE OF APPROVAL RECEIVED

DEC 2 0 2005

DIV. OF OIL, GAS & MINING





## UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT VERNAL FIELD OFFICE

170 South 500 East

**VERNAL, UT 84078** 

(435) 781-4400



## CONDITIONS OF APPROVAL FOR APPLICATION FOR PERMIT TO DRILL

Company: Newfield Production Co.

Location:

**NESW, Sec 33, T8S, R18E** 

Well No:

Federal 11-33-8-18

Lease No: UTU-65969

API No:

43-047-35972

Agreement: N/A

Petroleum Engineer:	Matt Baker	Office: 435-781-4490	Cell: 435-828-4470
Petroleum Engineer:	Michael Lee	Office: 435-781-4432	Cell: 435-828-7875
Supervisory Petroleum Technician:	Jamie Sparger	Office: 435-781-4502	Cell: 435-828-3913
Environmental Scientist:	Paul Buhler	Office: 435-781-4475	Cell: 435-828-4029
Environmental Scientist:	Karl Wright	Office: 435-781-4484	
Natural Resource Specialist:	Holly Villa	Office: 435-781-4404	
Natural Resource Specialist:	Melissa Hawk	Office: 435-781-4476	
<b>After Hours Contact Number: 435-</b>	781-4513	Fax: 435-781-4410	

# A COPY OF THESE CONDITIONS SHALL BE FURNISHED TO YOUR FIELD REPRESENTATIVE TO INSURE COMPLIANCE

All lease and/or unit operations are to be conducted in such a manner that full compliance is made with the applicable laws, regulations (43 CFR Part 3160), and this approved Application for Permit to Drill including Surface and Downhole Conditions of Approval. The operator is considered fully responsible for the actions of his subcontractors. A copy of the approved APD must be on location during construction, drilling, and completion operations.

#### **NOTIFICATION REQUIREMENTS**

Location Construction (Notify Melissa Hawk)

- Forty-Eight (48) hours prior to construction of location and access roads.

Location Completion (Notify Melissa Hawk)

Prior to moving on the drilling rig.

Spud Notice (Notify PE)

- Twenty-Four (24) hours prior to spudding the well.

Casing String & Cementing

(Notify SPT)

- Twenty-Four (24) hours prior to running casing and cementing

all casing strings.

BOP & Related Equipment Tests

(Notify SPT)

Twenty-Four (24) hours prior to initiating pressure tests.

First Production Notice

(Notify PE)

- Within Five (5) business days after new well begins or

production resumes after well has been off production for more

than ninety (90) days.

COAs: Page 2 of 6 Well: Federal 11-33-8-18

#### SURFACE USE PROGRAM CONDITIONS OF APPROVAL (COAs)

This well is being approved in accordance with Washington Instruction Memorandum 2005-247 and Section 390 (Category 3) of the Energy Policy Act which establishes statutory categorical exclusions (CX) under the National Environmental Policy Act (NEPA). Category 3 states that an oil or gas well can be drilled within a developed field for which an approved land use plan or any environmental document prepared pursuant to NEPA analyzed drilling as a reasonably foreseeable activity, so long as such plan or document was approved within five (5) years prior to the date of spudding the well. This well is covered under the *Final Environmental Impact Statement and Record of Decision Castle Peak and Eightmile Flat Oil and Gas Exploration Project Newfield Rocky Mountains Inc.*, signed November 21, 2005. If the well has not been spudded by November 21, 2010, a new environmental document will have to be prepared prior to the approval of the APD.

A certified paleontologist shall monitor the construction of the access road and well location. A report of all mitigation-curation of vertebrate and other scientifically important fossils shall be made to the Vernal Field Office Paleontology specialist.

Due to the presence of Sclerocactus habitat in this area, a survey shall be conducted by a qualified botanist prior to construction to determine if Sclerocactus are present. If cactus plants are located in the areas proposed for disturbance, changes will need to be made to avoid cactus plants.

4 to 6 inches of topsoil shall be stripped from the locations and placed as shown on the cut sheet. The topsoil shall be respread over the entire location as soon as completion operations have been finished and recontouring is complete. At this point the production equipment can be set. The areas of the location not needed for production operations, including the reserve pits, shall be seeded with crested wheatgrass (variety Hycrest) at a rate of 12 lbs per acre. The 12 lb/acre rate is considering pure live seed. The interim seeding shall be done by either drilling the seed or by broadcasting the seed and dragging it with a spike tooth harrow.

The pipeline trench for the gas lines shall be dug in the borrow ditch of the road and the trench material side cast into the existing vegetation. When backfilling the trenches, care shall be taken to disturb as little of the vegetation as possible and thus allowing the existing plants to reestablish on their own, however, this area shall also be seeded with crested wheatgrass at the 12 lb/acre rate to ensure vegetation establishment and to keep invasive weeds to a minimum. All seeding of the pipelines shall be completed using a seed drill.

No pipeline construction will be allowed outside of an already disturbed area when soils are muddy and rutting of soils becomes apparent from the use of vehicles. If rutting occurs, operations must cease until soils are dry or frozen.

COAs: Page 3 of 6 Well: Federal 11-33-8-18

#### DOWNHOLE CONDITIONS OF APPROVAL

All provisions outlined in Onshore Oil & Gas Order #2 Drilling Operations shall be strictly adhered to. The following items are emphasized:

#### SITE SPECIFIC DOWNHOLE CONDITIONS OF APPROVAL

1. None.

#### DRILLING/COMPLETION/PRODUCING OPERATING STANDARDS

- 1. There shall be no deviation from the proposed drilling, completion, and/or workover program as approved. Safe drilling and operating practices must be observed. All wells, whether drilling, producing, suspended, or abandoned, shall be identified in accordance with 43 CFR 3162.6. There shall be a sign or marker with the name of the operator, lease serial number, well number, and surveyed description of the well. Any changes in operation must have prior approval from the BLM, Vernal Field Office Petroleum Engineers.
- 2. The spud date and time shall be reported orally to Vernal Field Office within 24 hours of spudding.
- 3. Notify Vernal Field Office Supervisory Petroleum Engineering Technician at least 24 hours in advance of casing cementing operations and BOPE & casing pressure tests.
- 4. Blowout prevention equipment (BOPE) will remain in use until the well is completed or abandoned. Closing unit controls must remain unobstructed and readily accessible at all times. Choke manifolds must be located outside of the rig substructure.

All BOPE components will be inspected daily and those inspections shall be recorded in the daily drilling report. Components shall be operated and tested as required by Onshore Oil & Gas Order No. 2 to insure good mechanical working order. All BOPE pressure tests must be performed by a test pump with a chart recorder and **NOT** by the rig pumps. Test must be reported in the driller's log.

BOP drills must be initially conducted by each drilling crew within 24 hours of drilling out from under the surface casing and weekly thereafter as specified in Onshore Oil & Gas Order No. 2.

Casing pressure tests are required before drilling out from under all casing strings set and cemented in place.

No aggressive/fresh hard-banded drill pipe shall be used within casing.

5. All shows of fresh water and minerals will be reported and protected. A sample will be taken of any water flows and a water analysis furnished the BLM, Vernal Field Office. All oil and gas shows will be adequately tested for commercial possibilities, reported, and protected.

COAs: Page 4 of 6 Well: Federal 11-33-8-18

6. No location will be constructed or moved, no well will be plugged, and no drilling or workover equipment will be removed from a well to be placed in a suspended status without prior approval of the BLM, Vernal Field Office. If operations are to be suspended for more than 30 days, prior approval of the BLM, Vernal Field Office must be obtained and notification given before resumption of operations.

7. Chronologic drilling progress reports must be filed directly with the BLM, Vernal Field Office on a weekly basis in sundry, letter format or e-mail to the Petroleum Engineers until the well is completed.

Any change in the program must be approved by the BLM, Vernal Field Office. "Sundry Notices and Reports on Wells" (Form BLM 3160-5) must be filed for all changes of plans and other operations in accordance with 43 CFR 3162.3-2.

Emergency approval may be obtained orally, but such approval does not waive the written report requirement. Any additional construction, reconstruction, or alterations of facilities, including roads, gathering lines, batteries, etc., which will result in the disturbance of new ground, will require the filing of a suitable plan pursuant to Onshore Oil & Gas Order No. 1 of 43 CFR 3164.1 and prior approval by the BLM, Vernal Field Office.

In accordance with 43 CFR 3162.4-3, this well must be reported on the "Monthly Report of Operations" (Oil and Gas Operations Report ((OGOR)) starting with the month in which operations commence and continue each month until the well is physically plugged and abandoned. This report shall be filed in duplicate, directly with the Minerals Management Service, P.O. Box 17110, Denver, Colorado 80217-0110, or call 1-800-525-7922 (303) 231-3650 for reporting information.

8. Whether the well is completed as a dry hole or as a producer, "Well Completion and Recompletion Report and Log" (BLM Form 3160-4) will be submitted not later than 30 days after completion of the well or after completion of operations being performed, in accordance with 43 CFR 3162.4-1. Two copies of all logs run, core descriptions, and all other surveys or data obtained and compiled during the drilling, workover, and/or completion operations, will be filed on BLM Form 3160-4. Submit with the well completion report a geologic report including, at a minimum, formation tops, and a summary and conclusions. Also include deviation surveys, sample descriptions, strip logs, core data, drill stem test data, and results of production tests if performed. Samples (cuttings, fluid, and/or gas) will be submitted only when requested by the BLM, Vernal Field Office.

Please submit an electronic copy of all logs run on this well in LAS format to UT\_VN\_Welllogs@BLM.gov. This submission will supersede the requirement for submittal of paper logs to the BLM. The cement bond log must be submitted in raster format (TIF, PDF other).

9. All off-lease storage, off-lease measurement, or commingling on-lease or off-lease will have prior written approval from the BLM, Vernal Field Office.

COAs: Page 5 of 6 Well: Federal 11-33-8-18

All measurement points shall be identified as point of sales or allocation for royalty determination prior to the installation of facilities.

- 10. Oil and gas meters will be calibrated in place prior to any deliveries. The Field Office Petroleum Engineers will be provided with a date and time for the initial meter calibration and all future meter proving schedules. A copy of the meter calibration reports will be submitted to the BLM, Vernal Field Office. All measurement facilities will conform to the API standards for liquid hydrocarbons and the AGA standards for natural gas measurement.
- 11. A schematic facilities diagram as required by Onshore Oil & Gas Order No. 3 shall be submitted to the BLM, Vernal Field Office within 30 days of installation or first production, whichever occurs first. All site security regulations as specified in Onshore Oil & Gas Order No. 3 shall be adhered to. All product lines entering and leaving hydrocarbon storage tanks will be effectively sealed in accordance with Onshore Oil & Gas Order No. 3.
- 12. This APD is approved subject to the requirement that, should the well be successfully completed for production, the BLM, Vernal Field office must be notified when it is placed in a producing status. Such notification will be by written communication and must be received in this office by not later than the fifth business day following the date on which the well is placed on production. The notification shall provide, as a minimum, the following informational items:
  - a. Operator name, address, and telephone number.
  - b. Well name and number.
  - c. Well location (1/41/4, Sec., Twn, Rng, and P.M.).
  - d. Date well was placed in a producing status (date of first production for which royalty will be paid).
  - e. The nature of the well's production, (i.e., crude oil, or crude oil and casing head gas, or natural gas and entrained liquid hydrocarbons).
  - f. The Federal or Indian lease prefix and number on which the well is located; otherwise the non-Federal or non-Indian land category, i.e., State or private.
  - g. Unit agreement and / or participating area name and number, if applicable.
  - h. Communitization agreement number, if applicable.
- 13. Any venting or flaring of gas will be done in accordance with Notice to Lessees (NTL) 4A and needs prior approval from Field Office Petroleum Engineers.

COAs: Page 6 of 6 Well: Federal 11-33-8-18

14. All undesirable events (fires, accidents, blowouts, spills, discharges) as specified in NTL 3A will be reported to the BLM, Vernal Field Office. Major events as defined in NTL3A, will be reported verbally within 24 hours, followed by a written report within 15 days. "Other than Major Events" will be reported in writing within 15 days. "Minor Events" will be reported on the Monthly Report of Operations and Production

- 15. Pursuant to Onshore Oil & Gas Order No. 7, this is authorization for pit disposal of water produced from this well for a period of 90 days from the date of initial production. A permanent disposal method must be approved by this office and in operation prior to the end of this 90-day period. In order to meet this deadline, an application for the proposed permanent disposal method shall be submitted along with any necessary water analyses, as soon as possible, but no later than 45 days after the date of first production. Any method of disposal which has not been approved prior to the end of the authorized 90-day period will be considered as an Incident of Noncompliance and will be grounds for issuing a shut-in order until an acceptable manner for disposing of said water is provided and approved by this office.
- 16. Unless the plugging is to take place immediately upon receipt of oral approval, the Field Office Petroleum Engineers must be notified at least 24 hours in advance of the plugging of the well, in order that a representative may witness plugging operations. If a well is suspended or abandoned, all pits must be fenced immediately until they are backfilled. The "Subsequent Report of Abandonment" (Form BLM 3160-5) must be submitted within 30 days after the actual plugging of the well bore, showing location of plugs, amount of cement in each, and amount of casing left in hole, and the current status of the surface restoration.

# DIVISION OF OIL, GAS AND MINING

## **SPUDDING INFORMATION**

Name of Comp	oany:	:NEWFIELD PRODUCTION COMPANY				
Well Name:		FEDERA	L 11-33-8-1	8	_ <del></del>	
Api No <u>:</u>	<u>43-047-359′</u>	72	Lease	Туре: <u><b>F</b></u>	EDERAL _	···
Section 33 T	ownship <u>0</u>	Range 18E	County_	UI	NTAH	
Drilling Contra	actor	ROSS DRILING	<u> </u>	_RIG #	24	
SPUDDED	:					
Γ	Date	01/06/06				
Т	ime	10:00 AM	<u>~</u>			
]	How	DRY				
Drilling will	Commen	ce:				
Reported by		JUSTIN CRU	J <b>M</b>			<del>_</del>
Telephone #		1-435-823-673	33			
Date 01/0	06/2006_	Signed	CHD	33333		

FORM 3160-5 (September 2001)

# UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

FORM A	PPROVED
OMB No.	1004-0135
Expires Jan	uary 31,2004

E	BUREAU OF LAND MANAGI	EMENT		5. Lease Serial No	).
SUNDRY NOTICES AND REPORTS ON WELLS  Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.					
					6. If Indian, Allottee or Tribe Name.
				<u> </u>	
SUBMIT IN T	RIPLICATE - Other Instru	ictions on revers	e side:	7. If Unit or CA/A	greement, Name and/or No.
1. Type of Well		100		SUNDANCE UN	IIT
X Oil Well Gas Well	Other			8. Well Name and	No.
2. Name of Operator				FEDERAL 11-3	3-8-18
Newfield Production Company	1	W DI 21 (1 1 1		9. API Well No.	
3a. Address Route 3 Box 3630 Myton, UT 84052		b. Phone No. <i>(include</i> 135.646.37 <b>2</b> 1	are code)	4304735972	, or Exploratory Area
4. Location of Well (Footage, Sec.				Monument Butte	
2131 FSL 2079 FWL				11. County or Pari	sh, State
NE/SW Section 33 T8S R18	BE ·		·	Uintah,UT	
	A DOD ODDY ( SEE DOLY (DO)	TO DUDICATE	NA CELIDE OF NO		TIED DATA
12. CHECK	APPROPRIATE BOX(ES)			TICE, OR OT	HER DATA
TYPE OF SUBMISSION		T	YPE OF ACTION		
<b>—</b>	Acidize [	Deepen	Production	(Start/Resume)	Water Shut-Off
Notice of Intent	Alter Casing	Fracture Treat	Reclamati	on	Well Integrity
▼ Subsequent Report	Casing Repair	New Construction	Recomple	te	X Other
	Change Plans	Plug & Abandon	Temporari	ly Abandon	Spud Notice
Final Abandonment Notice	Convert to Injector	Plug Back	Water Dis	posal	
inspection.) On 01-6-2006 MIRU Ross csgn. Set @ 327.09/ KB C	only after all requirements, including re # 24.Spud well @ 10:00 AM on 01/11/2006 cement with a curned 4 bbls cement to pit.	. Drill 325' of 12 1. 160 sks of class "0	/4" hole with air m	ist. TIH W/ 7 Jt	's 8 5/8'' J-55 24#
				ŕ	•
I hereby certify that the foregoing is	true and correct	Title			
Name (Printed/ Typed)	struc and correct				
Troy Zufelt		Drilling Fore	man	<u> </u>	
Signatura	Į,	Date			
W DA THE	5N1	01/11/2006			
	THIS SPACE FOR	CFEDERAL OR	STAFFE OFFICE	LUSE	
A		T	tla	Dat	
Approved by Conditions of approval, if any, are attach	ed. Approval of this notice does not wa		tle	Dat	<u> </u>
certify that the applicant holds legal or e			ffice		

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious and fraudulent statements or representations as to any matter within its jurisdiction

(Instructions on reverse)

JAN 1 3 2006

# NEWFIELD PRODUCTION COMPANY - CASING & CEMENT DEPORT

			8 5/8	CASING SET	AT	327.09			•
LAST CASIN	G 8 5/8"	set @	327.09	•	OPERATOR	<b>.</b>	Newfield P	roduction C	ompany
DATUM				<del></del>				-33-8-18	
DATUM TO		ASING		·	FIELD/PRO				
		AD FLANGE			CONTRACT			Ross Rig #	24
		LOGGE							
HOLE SIZE								*	
LOG OF CAS	SING STRIN	IG:							
PIECES	OD	ITEM - I	MAKE - DESCI	RIPTION	WT / FT	GRD	THREAD	CONDT	LENGTH
									·
		Shoe	Joint 43.95'		,				<u> </u>
`		WHI - 92 csg	g head				8rd	Α	0.95
7	8 5/8"	Maverick ST	&C csg		24#	J-55	8rd .	Α	315.24
			GUIDE	shoe			8rd	Α	. 0.9
CASING INV	ENTORY B	AL.	FEET	JTS	TOTAL LEN	GTH OF ST	RING		317.09
TOTAL LENG	GTH OF ST	RING	317.09	7	LESS CUT OFF PIECE				
LESS NON (	CSG. ITEMS		1.85		PLUS DATU	JM TO T/CU	TOFF CSG	12	
PLUS FULL	JTS. LEFT (	DUT	0		CASING SET DEPTH		. [	327.09	
	TOTAL		315.24	7					
TOTAL CSG	. DEL. (W/O	THRDS)	315.24	7	COMPARE				
TIMING			1ST STAGE			•			
BEGIN RUN	CSG.	Spud	1/6/2006	10:00 AM	GOOD CIRC THRU JOB YES				
CSG. IN HO	LE		1/7/2006	3:00 PM	M Bbls CMT CIRC TO SURFACE			<u> </u>	
BEGIN CIRC	<u> </u>		1/11/2006	4:27 PM	RECIPROC	ATED PIPE	FOR	N/A <sup>-</sup>	
BEGIN PUM	P CMT		1/11/2006	4:42 PM	<u>.</u> .	*	-		
BEGIN DSPI	L. CMT		1/11/2006	4:55 PM	BUMPED P	LUG TO _		530	PSI
PLUG DOW	Ν		1/11/2006	5:01 PM					
CEMENT US	SED			CEMENT CO	MPANY-	B. J.			
STAGE	# SX			CEMENT TYPE	PE & ADDITIV	/ES			
11	160	Class "G" w	/ 2% CaCL2 +	1/4#/sk Cello-P	lake mixed @	) 15.8 ppg 1.	17 cf/sk yield	l	
			·						
CENTRALIZ	ER & SCRA	TCHER PLAC	CEMENT	<u> </u>	·	SHOW MAI	KE & SPACIN	IG	
Centralizer	s - Middle f	irst, top seco	ond & third fo	r 3					

COMPANY REPRESENTATIVE

DATE \_\_\_\_1/11/2006

JAN 1 3 2006

## RECEIVED

JAN 2 0 2006

OPERATOR: NEWFIELD PRODUCTION COMPANY
ADDRESS: RT. 3 BOX 3630

OPERATOR ACCT, NO.

N2695

STATE OF JEAN
DIVISION OF CILL GAS AND MINING
ENTITY ACTION FORM -FORM 6

DIV. OF OIL, GAS & MINING

RT. 3 BOX 3630 MYTON, UT 84962

			_,,,	or oral ario a minuma					<del></del>		
CODE CODE	CURRENT	NEW	AFI AUMBER	WELL NAME	7						
·.VIUE	SOFTITY NO.	EMITTY NO.	<u> </u>	TOTAL TENE	ga	30		OCATION		SPUID	EFFECTIVE
_		\ \V			1 44	36	179	RG	COUNTY	DATE	CATE
В	99999	12417	43-013-32639	LONE TREE FEDERAL 1-20-9-17	NENE	20	00		1.		1////
e: co	wwents.		0.0.1		NENE	20	95	17E	DUCHESNE	01/10/06	1/26/06
		ځ	RRU								<del></del>
		_	•						T		
CTURE!	CLARENT	HEW									
::CE	OLYIIIVE	ENTITY NO.	API NUMBER	WELLITAME		v	MELL LOCATI	ОН	<del></del>		
					00	SC	TP	ÆG	COUNTY	DATE	EFFECTIVE
в	99999	11492	42.042.00250		1					- O-13E	DATE
		11432	43-013-32753	JONAH 15-15-9-16	SWSE	15	98	16E	DUCHESNE	5445500	1/2/1/
		_	0 0 1 1		1		1 30	IOL	T DOCHESME	01/07/06	1/26/06
		(	RRV						3.4		, ,
		<i>O</i> ,	<b>.</b>						— K		
HCJ	CURRETT	HEN	APINUVBER						10		
CCE	ENTITY SO.	ENTITY NO.	-	WELL NAME			WELL	DICATRON	** <del> </del>	SPUO	1
f		V			00	-SC	TP	RG	COUNTY	DATE	EFFECTIVE
8	99999	12308	43-013-32445	CANDIMAGNATION	1						<del>                                     </del>
				SANDWASH FEDERAL 13-31-8-17	SWSW	31	88	17E	DUCHESNE	01/05/06	1/26/06
		GR	RII						DOGREGICAL	01100100	1 70,0106
		GP	<b>1</b>							<del></del>	
										— J	
COE	CHITT NO.	/Æ/A	APINUMBER	WELLNAME							
	EMIT INJ.	EHITTY NO.			60 1	WELLICATION SC TP RG COUNTY				SPUD	EFFECTIVE
в	00000	, V					- 'P	RG	COUNTY	DATE	CATE
0	99999	14844	43-047-35972	FEDERAL 11-33-8-18	NESW	33					1/ 1
			$\sim 1$		THE SAR	33	8S	18E	UINTAH	01/06/06	1/26106
		GR	RV	Surdance Unit							1-1-1-
		0,10	• •	source uni						<b>-</b> J	
	CUSERENT	HEW	101100000							)	
12E	≘HT/TY21O	EM_ILANO	AFINUNTER	WELL NAME			VÆLL LO	CATTON	<del></del>		
					00	90	ΤP	RG	COUNTY	SPUO DATE	EFFECTIVE
1	99999	15153	43-013-10822		T					LAIG	DATE
<u></u>		1-1-2	73-013-10822	PAN AMERICAN 1FR-9-16	NWNW	13	98	16E	DUCHESNE	04/05/00	1/20/01
	15/13:	$\cap \Delta \Lambda$	1)							01/05/06	1/20/06
		GR	V							eev -	
									67	$\frac{1}{2}$	K
	CURRENT	KEM	AFI NUMBER	WELL NAME							
_	SHTHY NO.	ENTIFY NO.		MET? INCHE	<del></del>		WELLIC			SFLO	EFFECTIVE
3	99999	12391 V	43-013-32796	GREATER BOUNDARY 2A-3-9-17	D,O	- SC	TP -	RG	COUNTY	DATE	DATE
L f COM	dexts:	0 0 0 1			NENW	3	98	17E	DUCHESNE	01/07/06	1/26/06
		GRRV	1								- yaujuu
				· ·							
ov cons	S See Pain of a	rs on back of famoj								· )	
a. ≣pla		, 15M, va j (etidja 1783) Gi 12 cu price (1 jatiči									
وريم م	da"/# 50 micin	enga (atama atawa an manfanda man at	LYI -M						10	I	

Accessive to existing or try (group or try well)

3. Reason well from one existing artify to another existing only

C - Re-assign and from one misting withy to a new early

E. Other registrating considers section)

an am

Kira Kettle

Production Clerk
Title

January 20, 2006 Date

HOTE Use COUNSEM sethento mean shy each Arben Cock was selected.

01/20/2006

INLAND

PAGE

FORM 3160-5 (September 2001)

# UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

SUNDRY NOTICES AND REPORTS ON WELLS on not use this form for proposals to drill or to re-enter an undered well. Her Form 3160-3 (APD) for such proposals

FORM A	PPROVED
OMB No.	1004-0135
Expires Janu	jary 31,2004

<ol><li>Lease Serial No.</li></ol>	,	
UTU65969	,	

Do not use the abandoned we	6. If Indian, Allottee or Tribe Name.				
SUBMITINTE  1. Type of Well	SUNDANCE UN	7. If Unit or CA/Agreement, Name and/or No. SUNDANCE UNIT			
Oil Well Gas Well      Name of Operator	Other			8. Well Name and FEDERAL 11-33	
NEWFIELD PRODUCTION CO  3a. Address Route 3 Box 3630	<del></del>	3b. Phone No. (includ	e are code)	9. API Well No. 4304735972	
Myton, UT 84052		435.646.3721	<u> </u>		, or Exploratory Area
4. Location of Well (Footage, Sec 2131 FSL 2079 FWL	., T., R., M., or Survey Description	)		11. County or Pari	
NE/SW Section 33 T8S R1	8E		·	Uintah,UT	
12. CHECK	APPROPRIATE BOX(ES	) TO INIDICATE	NATURE OF N	OTICE, OR OT	HER DATA "
TYPE OF SUBMISSION		7	YPE OF ACTION		
☐ Notice of Intent  ☑ Subsequent Report  ☐ Final Abandonment Notice	Acidize Alter Casing Casing Repair Change Plans Convert to Injector	Deepen Fracture Treat New Construction Plug & Abandon Plug Back	Reclamat	ete rily Abandon	<ul><li>Water Shut-Off</li><li>Well Integrity</li><li>✓ Other</li><li>Weekly Status Report</li></ul>
involved operations. If the operation Abandonment Notices shall be filed inspection.)  On 1/28/2006 MIRU Patters Test 8.625 csgn to 1,500 ps Drill out cement & shoe. Dr Dig/SP/GR log's TD to surfs / KB. Cement with 325 sks	med or provide the Bond No. on file win results in a multiple completion or reconly after all requirements, including reson Rig # 155. Set all equippes. Vernal BLM field, & Roos ill a 7.875 hole with fresh water. PU & TIH with Guide stocenent mixed @ 11.0 ppg & Nipple down Bop's. Drop set true and correct	ment. Pressure tes sevelt DOGM office ater to a depth of 6 hoe, shoe jt, float 0 & 3.43 yld. The 45	at, a Form 3160-4 shall be appleted, and the operator st Kelly, TIW, Cho as was notifed of te ,090'. Lay down collar, 141 jt's of 50 sks cement mix	ke filed once testing has has determined that the ke manifold, & E st. PU BHA and drill string & BHA .5 J-55, 15.5# csed @ 14.4 ppg 8	s been completed. Final e site is ready for final  Bop's to 2,000 psi. Itag cement @ 287'. A. Open hole log w/ sgn. Set @ 6083.96' & 1.24 yld. With 20
Name (Printed/ Typed) Floyd Mitchell	, and and control	Drilling Sup	ervisor		
Signature Fled M	thell	Date 02/02/2006			-
	THIS SPACE FO	R FEDERAL OR	STATE OFFIC	E USE	A CONTRACTOR
Approved by		T	tle	Date	e
Conditions of approval, if any, are attach certify that the applicant holds legal or ewhich would entitle the applicant to conditions.	quitable title to those rights in the subje		ffice		
Title 18 U.S.C. Section 1001 and Title 4. States any false, fictitious and fraudulent	3 U.S.C. Section 1212, make it a crime			any department or age	ency of the United

(Instructions on reverse)

<b>\</b>	NEWFIE	ld Prod	DUCTION C	ompany.	· Casing	& CEME	MIREPO	RT	
			5 1/2"	CASING SET	ГАТ	6083.96			
					Fit cllr @				
LAST CASI	NG 8 5/8"	Set@	327.09	)	_			Production (	lomoany
DATUM _	12' KB			4*	WELL		· · · · · · · · · · · · · · · · · · ·		, , , , , , , , , , , , , , , , , , ,
		ASING	12'	·	-		Monumen	t Śutte	
DATUM TO	BRADENHE	EAD FLANGE		<del></del>				Patterson-	Ria # 155
TD DRILLER	6090'	Loggers TD						***************************************	
HÖLE SIZE	7 7/8"								
LOG OF CA	SING STRIN	IG:			.•				
PIECES	OD	ITEM -	MAKE - DESC	RIPTION	WT/FT	GRD	THREAD	CONDT	LENGTH
		Landing Jt	·····						14
	SHJT	6.20 @ 41	75.58						
141	5 1/2"	ETC LT & C	casing	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	15.5#	J-55	8rd	A	6028.13
·.		Float collar	at collar						0.6
1	5 1/2"	ETC LT&C		·	15.5#	J-55	8rd	А	42.58
			GUIDE *	shoe			8rd	A	0.65
CASING INV	ENTORY B	AL.	FEET	JTS	TOTAL LENGTH OF STRING 608				6085.96
TOTAL LEN	GTH OF ST	RING	6085.96	142	LESS CUT OFF PIECE				14
LESS NON	CSG. ITEMS		15.25		PLUS DATUM TO T/CUT OFF CSG				12
PLUS FULL	JTS. LEFT C	DUT	85.98	2	CASING SE	T DEPTH		L	6083.96
	TOTAL		6156.69	144	1				
TOTAL CSG	DEL. (W/O	THRDS)	6156.69	144	] COMPARE				
TIMING	·		1ST STAGE	2nd STAGE					
BEGIN RUN	CSG.		2/1/2006	4:30 AM	GOOD CIRC	THRU JOB	3	YES	
CSG. IN HO	E		2/1/2006	8:00 AM	Bbls CMT CI	RC TO SUF	RFACE	20	
BEGIN CIRC	;		2/1/2006	9:47 AM	RECIPROCA	ATED PIPE I	FOR	THRUSTROK	<u>=</u> _
BEGIN PUM	P CMT		2/1/2006	10:23 AM	DID BACK P	RES. VALV	E HOLD ? _	YES	
BEGIN DSPL	CMT		2/1/2006	10:43	BUMPED PL	.UG TO		1900	PSI
PLUG DOW	٧		2/1/2006	11:09 AM					
CEMENT US	ED		2006	CEMENT CO	MPANY-	B. J.	•••		
STAGE	# SX		. <del></del>	CEMENT TYP	E & ADDITIV	ES .			***
1	325	Premiite II w	/ 10% gel + 3 9	% KCL, 3#'s /sl	k CSE + 2# sl	k/kolseal + 1	/4#'s/sk Cello	Flake	
	mixed @ 11.0 ppg W / 3.43 cf/sk yield								

COMPANY REPRESENTATIVE	Troy Zufelt	D.	DATE _	1/31/2006
------------------------	-------------	----	--------	-----------

50/50 poz W/ 2% Gel + 3% KCL, .5%EC1,1/4# sk C.F. 2% gel. 3% SM mixed @ 14.4 ppg W/ 1.24 YLD

SHOW MAKE & SPACING

450

CENTRALIZER & SCRATCHER PLACEMENT

Centralizers - Middle first, top second & third. Then every third collar for a total of 20.

FORM 3160-5 (September 200

# UNITED STATES

FORM APPROVED OMB No. 1004-0135

(September 2001)	Ŀ	Expires January 31,2004			
	5. Lease Serial	. Lease Serial No.			
SUNDR	UTU65969				
Do not use t abandoned w	6. If Indian, Allo	6. If Indian, Allottee or Tribe Name.			
	RIPLICATE - Other In	structions on reverse side	7. If Unit or CA	/Agreement, Name and/or No.	
1. Type of Well  Oil Well  Gas Well	Other		9 377.11 37	115	
2. Name of Operator	Office		8. Well Name at FEDERAL 11		
NEWFIELD PRODUCTION CO	MPANY		9. API Well No.		
3a. Address Route 3 Box 3630		3b. Phone No. (include are co			
Myton, UT 84052  4. Location of Well (Footage, Sec	T P M or Survey Descrip	435.646.3721	10. Field and Po	ol, or Exploratory Area	
2131 FSL 2079 FWL	I., N., MI., OF BUT VEY DESCRIP	11011)	11. County or P.		
NE/SW Section 33 T8S R	8E		Uintah,UT		
12. CHECK	APPROPRIATE BOX(	ES) TO INIDICATE NAT	URE OF NOTICE, OR O	THER DATA	
TYPE OF SUBMISSION		TYPE C	OF ACTION		
Notice of Intent	Acidize Alter Casing Casing Repair	Deepen [ Fracture Treat New Construction	Production(Start/Resume) Reclamation Recomplete	Water Shut-Off Well Integrity	
Subsequent Report	Change Plans	Plug & Abandon	Temporarily Abandon	Other	
Final Abandonment Notice	Convert to Injector		X Water Disposal		
involved operations. If the operation Abandoment Notices shall be filed inspection.)  Formation water is product Ashley, Monument Butte, a produced water is injected	on results in a multiple completion of only after all requirements, including to a steel storage tank Jonah, and Beluga water into approved Class II we criteria, is disposed at Ne	e with BLM/BIA. Required subsequer recompletion in a new interval, a For ng reclamation, have been completed, a . If the production water me injection facilities by compa ells to enhance Newfield's s wfield's Pariette #4 disposa	n 3160-4 shall be filed once testing and the operator has determined that eets quality guidelines, it is ny or contract trucks. Subjected and ary recovery projected the state of the state	has been completed. Final the site is ready for final stransported to the sequently, the t.	
		Accepted Utah Divi Oil, Gas an FOR RECO	sion of d Mining		
I hereby certify that the foregoing	s true and correct	Title		<del></del>	
Name (Printed/Typed)	was and source	+	•		
Mandie Crozier	<del></del>	Regulatory Specialis	<u> </u>		
Wando C	217.	Date 03/02/2006			
VI JOHN WY	THIS SPICE I	OR SERENAL OR STA	DE OFFICE HOE		

Title Date Approved by Conditions of approval, if any are attached. Approval of this notice does not warrant or Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictutions and froudulent statements or representations as to any matter within its jurisdiction.

WAR 0.3 2006 certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

FORM 3160-5 (September 2001)

# UNITED STATES DEPARTMENT OF THE INTERIOR BUILDEALLOE LAND MANAGEMENT

FORM APPROVED OMB No. 1004-0135 Expires January 31,2004

	EFARIMENT OF THE			1:37	pires January 31,2004		
	BUREAU OF LAND MAN	AGEMENI		<ol><li>Lease Serial N</li></ol>	5. Lease Serial No.		
SUNDRY	UTU65969						
Do not use t abandoned w	6. If Indian, Allottee or Tribe Name.						
SUBMIT IN T	RIPLICATE - Other In	structions on reverse si	de	7. If Unit or CA/A	Agreement, Name and/or No.		
				SUNDANCE U			
<ol> <li>Type of Well</li> <li>Oil Well</li> <li>Gas Well</li> </ol>	Other			8. Well Name and	d No		
2. Name of Operator				FEDERAL 11-3			
NEWFIELD PRODUCTION CO	)MPANY	·		9. API Well No.			
3a. Address Route 3 Box 3630		3b. Phone No. (include are 435.646.3721	code)	4304735972	ol, or Exploratory Area		
Myton, UT 84052 4. Location of Well (Footage, Sec	T R., M., or Survey Descrit			Monument Butt			
2131 FSL 2079 FWL		,		11. County or Par	rish, State		
NE/SW Section 33 T8S R1	.8E			Uintah,UT			
12. CHECH	C APPROPRIATE BOX	(ES) TO INIDICATE NA	TURE OF N	OTICE, OR OT	THER DATA		
TYPE OF SUBMISSION		ŢŶ₽	E OF ACTION	J	· · · · · · · · · · · · · · · · · · ·		
	Acidize	Deepen	Producti	on(Start/Resume)	☐ Water Shut-Off		
Notice of Intent	Alter Casing	Fracture Treat	Reclama		Well Integrity		
Subsequent Report	Casing Repair	New Construction	Recomp	lete	X Other		
	Change Plans	Plug & Abandon	Tempora	arily Abandon	Variance		
Final Abandonment Notice	Convert to Injector	Plug Back	☐ Water D	Pisposal			
tanks to be equipped with formation, which are relative separator to maximize gas.  Newfield is requesting a variety a surge of gas when the that well as risk a fire hazard	vely low gas producers (2 separation and sales. ariance for safety reasons lief hatches are open. Wh	20 mcfpd). The majority of s. Crude oil production tar nile gauging tanks, lease	the wells are	e equipped with a with a with back press	a three phase sure devices will emit		
CHO 03-76	ōġ.		ed by the ivision o and Mini	f ng Fe	deral Approval Of This Action Is Necessary		
I hereby certify that the foregoing	is true and correct	Title					
Name (Printed: Typed) Mandie Crozier		Regulatory Speci	alist				
Sienatura:	<i>/</i> ·	Date					
1 gande	THIS SPACE	63/02/2006 FOR FEDERAL OR ST	ATE OFFI	CE USE			
Approved by		. Title		Da	ite		
Conditions of approval, if any, are attac certify that the applicant holds legal or							
which would entitle the applicant to cor	nduct operations thereon.			COEN/EF			
Title 18 U.S.C. Section 1001 and Title States any false, fictitious and frauduler			willfully to make		ency of the United		

FORM 3160-5 (September 2001)

#### **UNITED STATES** DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

FORM AF	PROVED
OMB No.	1004-0135
Expires Janu	ary 31,200

<ol><li>Lease Serial No.</li></ol>	
UTU65969	

SUNDR	UTU65969	UTU65969			
	this form for proposals to tell. Use Form 3160-3 (AF			6. If Indian, Allo	tee or Tribe Name.
	RIPLICATE - Other Ins	tructions on reverse s	de .	7. If Unit or CA/A	Agreement, Name and/or No.
1. Type of Well  Coll Well  Gas Well	Other			8. Well Name and	i No
2. Name of Operator	N.MANIY			FEDERAL 11-	
NEWFIELD PRODUCTION CO 3a. Address Route 3 Box 3630	MPANT	3b. Phone No. (include ar	e codel	9. API Well No. 4304735972	
Myton, UT 84052		435.646.3721			l, or Exploratory Area
4. Location of Well (Footage, Sec 2131 FSL 2079 FWL	c., T., R., M., or Survey Description	on)		Monument Butt 11. County or Par	
NE/SW Section 33 T8S R1	8E			Uintah,UT	
12. CHECK	K APPROPRIATE BOX(E	S) TO INIDICATE N	ATURE OF	NOTICE, OR OT	THER DATA
TYPE OF SUBMISSION		TYP	E OF ACTIO	ON	
☐ Notice of Intent  ☑ Subsequent Report  ☐ Final Abandonment Notice	Acidize Alter Casing Casing Repair Change Plans Convert to Injector	Deepen Fracture Treat New Construction Plug & Abandon Plug Back	Reclar Recon	ction(Start/Resume) mation mplete orarily Abandon Disposal	Water Shut-Off Well Integrity Other Weekly Status Report
Status report for time period Subject well had completion the well. A cement bond lot reated with 20/40 mesh sa (5360'-5391'); Stage #3 (50 stages. Fracs were flowed drilled out and well was clewell on sucker rods. Well well on sucker rods.	on procedures intiated in the g was run and a total of thr and. Perforated intervals an 105'-5012'). All perforations back through chokes. A second to 6040'. Zones were was placed on production vi	e Green River formation ee Green River interva e as follows: Stage #1 , were 4 JSPF. Compo- ervice rig was moved on e swab tested for sand ia rod pump on 02-28-2	n on 02-09-0 ls were perf (5912'-5920 site flow-thro er the well cleanup. A r	06 without the use forated and hydrau '),(5831'-5835'),(5 ough frac plugs we on 02-22-2006. Br	of a service rig over llically fracture 786'-5790'); Stage #2 ere used between idge plugs were
I hereby certify that the foregoing i Name (Printed/ Typed) Lana Nebeker   Signature	s true and correct	Title Production Clerk Date		·	
Jyna. Y	THIS SPACE FO	03/23/2006 DR FEDERAL OR ST	ATE OFF	ICE USE	
		SECTION ASSESSMENT OF THE SECTION ASSESSMENT	200 - 100 Eggs 1 300 Sand	enter of the last	STREET HER EAST STREET, STREET STREET
Approved by  Conditions of approval, if any, are attackertify that the applicant holds legal or e			····	Dat	e
which would entitle the applicant to con Title 18 U.S.C. Section 1001 and Title 4		ne for any person knowingly and	willfully to mek	e to any densitiment or ag	ency of the United
States any false, fictitious and fraudulen			y to mak	o to any department of ag	

FORM 3160-4 (July 1992) SUBMIT IN DUPLICATE\* FORM APPROVED

(See other in-

FORM APPROVED OMB NO. 1004-0137

structions ons reverse side)

Expires: February 28, 1995

#### 5. LEASE DESIGNATION AND SERIAL NO.

UNITED STATES
DEPARTMENT OF THE INTERIOR

	<del> </del>	BUKE	AU OF LAND	MANAGEME	IN I				-65963
WELL CO	OMPLI	ETION	OR RECO	MPLETION F	REPORT A	ND LOG	*	6. IF INDIAN. ALLOTTEE	OR TRIBE NAME NA
ta. TYPE OF WORK								7. UNIT AGREEMENT N.	
OIL WELL			X GAS WELL		Other			Sunda	ince Unit
1b. TYPE OF WELL					<b></b> !				
vew 🗀 w	3017 [	r			٦			8. FARM OR LEASE NAM	IE. WELL NO.
	ORK     ER	DEEPEN	PLUC BACI		Other			Federal	11-33-8-18
2. NAME OF OPERATOR	<u>-</u>							9. WELL NO.	
2 ADDINGO AND TELLUNGS	ENIO	Ne	wfield Explora	ation Company					7-35972
3. ADDRESS AND TELEPHONI		401 17th	St. Suite 100	00 Denver, CO	80202			10. FIELD AND POOL OR	WILDCAT Mile Flat
4. LOCATION OF WELL (F								H. SEC., T., R., M., OR BI	
At Surface		2131	FSL & 2079' FV	VL (NE/SW) Sec. 3	33, T8S, R18E			OR AREA	
At top prod. Interval reported	d below							Sec. 33,	T8S, R18E
A 1 (			F						
At total depth			14. API NO	o. 3-047-35972	DATE ISSUED	10/6/04		12. COUNTY OR PARISH Uintah	13. STATE UT
15. DATE SPUDDED 16. I	DATE T.D. R	EACHED	17. DATE COMPL		18. ELEVATIONS (		I TC.)*	Omtan	19. ELEV. CASINGHEAD
1/6/06		1/06	2	2/28/06	4903	3' GL		4915' KB	
20. TOTAL DEPTH, MD & TVD	)	21. PLUG BAC	K T.D., MD & TVD	22. IF MULTIPLE HOW MANY		23. INTERVALS	ROT.	VRY TOOLS	CABLE TOOLS
6090'			6040'	NOW MAINT		DRILLED BY		Χ	
24. PRODUCING INTERVAL(S)	). OF THIS C	OMPLETION	TOP, BOTTOM, NAMI	E (MD AND TVD)*		1	I		25. WAS DIRECTIONAL
			Green	River 5005'-	5920'				SURVEY MADE
					<del></del>				No
26. TYPE ELECTRIC AND OTH Dual Induction Gu			nsated Densi	ity Compensate	ed Neutron (	GR Caliner	Ceme	ent Bond Loa	27. WAS WELL CORED NO
23.	,	,		ING RECORD (Repor			, 001110	nii Bona Log	
CASING SIZE/GRAD	E	WEIGHT.		PTH SET (MD)	HOLE SIZE	<del></del>		MENTING RECORD	AMOUNT PULLED
8-5/8" - J-55		24		327'	12-1/4"	<del>}</del>		sx Class "G" cmt	
5-1/2" - J-55		15.5	D#	6084'	7-7/8"	325 sx Prem	ilite II and	d 450 sx 50/50 Poz	
29.		LINE	ER RECORD		<u> </u>	30.		TUBING RECORD	
SIZE	TOP (N		BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)	SIZE		DEPTH SET (MD)	PACKER SET (MD)
						2-7/8"		EOT @	TA @
L							<u> </u>	5959	5860'
31. PERFORATION RECORD INTERN		e and number)	SIZE	SPF/NUMBER	32. DEPTH INT			JRE, CEMENT SQUEE AMOUNT AND KIND OF	
(CP3,4,&5) 5786'-90', 5		5912'-20'	.46"	4/64	5786'-5920'		Frac w/ 34,856# 20/40 s		
<del></del>		360'-5391'	.43"	4/124	5360'-		<del></del>		and in 1140 bbls fluid
	· · · · · · · · · · · · · · · · · · ·	05'-5012'	.43"	4/28				Frac w/ 17,076# 20/40 sand in 261 bb	
						3000 0012			
			<u> </u>		<u> </u>		ļ		
33.*	<del></del>			PRODUC	TION		l		
DATE FIRST PRODUCTION		PRODUCTION	S METHOD (Flowing, g	gas lift, pumpingsize and ty				WELL ST	ATUS (Producing or shut-in)
2/28/06				<u>/2" x 1-1/2" x 12</u>					RODUCING
DATE OF TEST	HOU	RS TESTED	CHOKE SIZE	PROD'N, FOR OIL TEST PERIOD	BBLS.	GASMCF.	WATE	₹₿₿Ц.	GAS-OII, RATIO
30 day ave				>	17	4		38	235
FLOW, TUBING PRESS,	CASI:	NG PRESSURE	CALCULATED 24-HOUR RATE	OIL-BBL.	GASMCF.		WATER-	-BBL. OU. GRAVE	Y-API (CORR.)
			>						
34 DISPOSITION OF GAS (Sold	l, used for fue	l. vented, etc.)			1			TEST WITNESSED BY	
			Sold & Use	d for Fuel		REC	EIV	ED	
35. LIST OF ATTACHMENTS	1								
2016	//		7			APR	1 1 20	06	
30. Thereby cert is that the fe	nygoing an	Lol	ormation is complete	and correct as determin	ed from alt availabl Recu				J 712006
	<i>Jenes</i>	<del>, , ,</del> ,				DIV. OF OIL,	GAS &	VINING	2000

overies); FORMATION	ТОР	воттом	DESCRIPTION, CONTENTS, ETC.		то	P
			333311 10/14 60/11 21/10	NAME		TRUE
					MEAS. DEPTH	VERT. DEP
			Well Name	Garden Gulch Mkr	3849'	
			Federal 11-33-8-18	Garden Gulch 1	4049'	
				Garden Gulch 2	4168'	
				Point 3 Mkr	4433'	
				X Mkr	4644'	
				Y-Mkr	4678'	
				Douglas Creek Mkr	4812'	,
				BiCarbonate Mkr	5063'	
				B Limestone Mkr Castle Peak	5238'	
				Basal Carbonate	5620' 6020'	
				Total Depth (LOGGERS	6098'	
				Total Depth (EOGGERG	0070	
		-				
	•					
				!		

# THE STATE OF THE PROPERTY OF T

#### UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 8 1595 WYNKOOP STREET DENVER, CO 80202-1129 http://www.epa.gov/region8

Ref: 8P-W-GW

OCT 0 6 2009

# CERTIFIED MAIL RETURN RECEIPT REQUESTED

Eric Sundberg Newfield Production Company 1001 Seventeenth Street, Suite 2000 Denver, CO 80202 Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY

RECEIVED OCT 1 2 2009

DIV. OF OIL, GAS & MINING

Re: Final Permit

EPA UIC Permit UT22151-08472

Federal 11-33-8-18

NE SW Sec. 33-T8S-R18E Uintah County, Utah

API No.: 43-047-35972

Dear Mr. Sundberg:

Enclosed is your copy of the FINAL Underground Injection Control (UIC) Permit for the proposed Federal 11-33-8-18 injection well. A Statement of Basis that discusses the conditions and requirements of this EPA UIC Permit, is also included.

The Public Comment period for this Permit ended on \_\_\_\_\_\_. No comments on the Draft Permit were received during the Public Notice period; therefore the Effective Date for this EPA UIC Permit is the date of issuance. All conditions set forth herein refer to Title 40 Parts 124, 144, 146, and 147 of the Code of Federal Regulations (CFR) and are regulations that are in effect as of the Effective Date of this Permit.

Please note that under the terms and conditions of this Final Permit you are authorized only to construct the proposed injection well. Prior to commencing injection, you first must fulfill all "Prior to Commencing Injection" requirements of the Final Permit, Part II Section C.1, and obtain written Authorization to Inject from the EPA. It is your responsibility to be familiar with and to comply with all provisions of your Final Permit. The EPA forms referenced in the permit are available at http://www.epa.gov/safewater/uic/reportingforms.html. Guidance documents for Cement Bond Logging, Radioactive Tracer testing, Step Rate testing, Mechanical Integrity demonstration, Procedure in the Event of a Mechanical Integrity Loss, and other UIC guidances, are available at http://www.epa.gov/region8/water/uic/ deep\_injection.html. Upon request, hard copies of the EPA forms and guidances can be provided.

This EPA UIC Permit is issued for the operating life of the well unless terminated (Part III, Section B). The EPA may review this Permit at least every five (5) years to determine whether any action is warranted pursuant to 40 CFR § 144.36(a).

If you have any questions on the enclosed Final Permit or Statement of Basis, please call Emmett Schmitz of my staff at (303) 312-6174, or toll-free at (800) 227-8917, ext. 312-6174.

Sincerely,

MANUAL MANUAL Stephen S. Tuber

Assistant Regional Administrator

Office of Partnerships and Regulatory Assistance

enclosure:

Final UIC Permit

Statement of Basis

cc:

Letter:

Uintah & Ouray Business Committee, Ute Indian Tribe: Curtis Cesspooch, Chairman Irene Cuch, Vice-Chairwoman Frances Poowegup, Councilwoman Ronald Groves, Councilman Phillip Chimburas, Councilman Steven Cesspooch, Councilman

Daniel Picard, Superintendent Uintah & Ouray Indian Agency U.S. Bureau of Indian Affairs

cc: all enclosures:

Michael Guinn District Manager Newfield Production Company Myton, Utah Larry Love Director Energy & Minerals Dept. Ute Indian Tribe

Ferron Secakuku Director, Natural Resources Ute Indian Tribe

Gilbert Hunt Associate Director State of Utah - Natural Resources

Fluid Minerals Engineering Dept. U.S. Bureau of Land Management Vernal, Utah



# **\$EPA**

# UNDERGROUND INJECTION CONTROL PROGRAM PERMIT

PREPARED: September 2009

Permit No. UT22151-08472

Class II Enhanced Oil Recovery Injection Well

Federal 11-33-8-18 Uintah County, UT

Issued To

**Newfield Production Company** 

1001 Seventeenth Street, Suite 2000 Denver, CO 80202

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#### Part I. AUTHORIZATION TO CONSTRUCT AND OPERATE

Under the authority of the Safe Drinking Water Act and Underground Injection Control (UIC) Program regulations of the U. S. Environmental Protection Agency (EPA) codified at Title 40 of the Code of Federal Regulations (40 CFR) Parts 2, 124, 144, 146, and 147, and according to the terms of this Permit.

Newfield Production Company 1001 Seventeenth Street, Suite 2000 Denver, CO 80202

is authorized to construct and to operate the following Class II injection well or wells:

Federal 11-33-8-18 2,131' FSL & 2,079' FWL, NESW S33, T8S, R18E Uintah County, UT

EPA regulates the injection of fluids into injection wells so that injection does not endanger underground sources of drinking water (USDWs). EPA UIC Permit conditions are based on authorities set forth at 40 CFR Parts 144 and 146, and address potential impacts to USDWs.

Under 40 CFR Part 144, Subpart D, certain conditions apply to all UIC Permits and may be incorporated either expressly or by reference. General permit conditions for which the content is mandatory and not subject to site-specific differences are not discussed in this document. Issuance of this Permit does not convey any property rights of any sort or any exclusive privilege, nor does it authorize injury to persons or property or invasion of other private rights, or any infringement of other Federal, State or local laws or regulations. (40 CFR §144.35) An EPA UIC Permit may be issued for the operating life of the injection well or project unless terminated for reasonable cause under 40 CFR §144.39, 144.40 and 144.41, and may be reviewed at least once every five (5) years to determine if action is required under 40 CFR §144.36(a).

This Permit is issued for the life of the well(s) unless modified, revoked and reissued, or terminated under 40 CFR §144.39 or 144.40. This EPA Permit may be adopted, modified, revoked and reissued, or terminated if primary enforcement authority for a UIC Program is delegated to an Indian Tribe or State. Upon the effective date of delegation, reports, notifications, questions and other correspondence should be directed to the Indian Tribe or State Director.

Issue Date: SEP 2 4 2009 Effective Date SEP 2 4 2009

Stephen S. Tuber

Assistant Regional Administrator\*

Office of Partnerships and Regulatory Assistance

\*NOTE: The person holding this title is referred to as the "Director" throughout this Permit.

## PART II. SPECIFIC PERMIT CONDITIONS

#### Section A. WELL CONSTRUCTION REQUIREMENTS

These requirements represent the approved minimum construction standards for well casing and cement, injection tubing, and packer.

Details of the approved well construction plan are incorporated into this Permit as APPENDIX A. Changes to the approved plan that may occur during construction must be approved by the Director prior to being physically incorporated.

#### 1. Casing and Cement.

The well or wells shall be cased and cemented to prevent the movement of fluids into or between underground sources of drinking water. The well casing and cement shall be designed for the life expectancy of the well and of the grade and size shown in APPENDIX A. Remedial cementing may be required if shown to be inadequate by cement bond log or other attempted demonstration of Part II (External) mechanical integrity.

#### 2. Injection Tubing and Packer.

Injection tubing is required, and shall be run and set with a packer at or below the depth indicated in APPENDIX A. The packer setting depth may be changed provided it remains below the depth indicated in APPENDIX A and the Permittee provides notice and obtains the Director's approval for the change.

#### 3. Sampling and Monitoring Devices.

The Permittee shall install and maintain in good operating condition:

- (a) a "tap" at a conveniently accessible location on the injection flow line between the pump house or storage tanks and the injection well, isolated by shut-off valves, for collection of representative samples of the injected fluid; and
- (b) one-half (1/2) inch female iron pipe fitting, isolated by shut-off valves and located at the wellhead at a conveniently accessible location, for the attachment of a pressure gauge capable of monitoring pressures ranging from normal operating pressures up to the Maximum Allowable Injection Pressure specified in APPENDIX C:
  - (i) on the injection tubing; and
  - (ii) on the tubing-casing annulus (TCA); and
- (c) a pressure actuated shut-off device attached to the injection flow line set to shutoff the injection pump when or before the Maximum Allowable Injection Pressure (MAIP) specified in APPENDIX C is reached at the wellhead, and
- (d) a non-resettable cumulative volume recorder attached to the injection line.

#### 4. Well Logging and Testing

Well logging and testing requirements are found in APPENDIX B. The Permittee shall ensure the log and test requirements are performed within the time frames specified in APPENDIX B. Well logs and tests shall be performed according to current EPA-approved procedures. Well log and test results shall be submitted to the Director within sixty (60) days of completion of the logging or testing activity, and shall include a report describing the methods used during logging or testing and an interpretation of the test or log results.

#### 5. Postponement of Construction or Conversion

The Permittee shall complete well construction within one year of the Effective Date of the Permit, or in the case of an Area Permit within one year of Authorization of the additional well. Authorization to construct and operate shall expire if the well has not been constructed within one year of the Effective Date of the Permit or Authorization and the Permit may be terminated under 40 CFR 144.40, unless the Permittee has notified the Director and requested an extension prior to expiration. Notification shall be in writing, and shall state the reasons for the delay and provide an estimated completion date. Once Authorization has expired under this part, the complete permit process including opportunity for public comment may be required before Authorization to construct and operate may be reissued.

#### 6. Workovers and Alterations

Workovers and alterations shall meet all conditions of the Permit. Prior to beginning any addition or physical alteration to an injection well that may significantly affect the tubing, packer or casing, the Permittee shall give advance notice to the Director and obtain the Director's approval. The Permittee shall record all changes to well construction on a Well Rework Record (EPA Form 7520-12), and shall provide this and any other record of well workover, logging, or test data to EPA within sixty (60) days of completion of the activity.

A successful demonstration of Part I MI is required following the completion of any well workover or alteration which affects the casing, tubing, or packer. Injection operations shall not be resumed until the well has successfully demonstrated mechanical integrity and the Director has provided written approval to resume injection.

#### Section B. MECHANICAL INTEGRITY

The Permittee is required to ensure each injection well maintains mechanical integrity at all times. The Director, by written notice, may require the Permittee to comply with a schedule describing when mechanical integrity demonstrations shall be made.

An injection well has mechanical integrity if:

- (a) There is no significant leak in the casing, tubing, or packer (Part I); and
- (b) There is no significant fluid movement into an underground source of drinking water through vertical channels adjacent to the injection well bore (Part II).

#### 1. Demonstration of Mechanical Integrity (MI).

The operator shall demonstrate MI prior to commencing injection and periodically thereafter. Well-specific conditions dictate the methods and the frequency for demonstrating MI and are discussed in the Statement of Basis. The logs and tests are designed to demonstrate both internal (Part I) and external (Part II) MI as described above. The conditions present at this well site warrant the methods and frequency required in Appendix B of this Permit.

In addition to these regularly scheduled demonstrations of MI, the operator shall demonstrate internal (Part I) MI after any workover which affects the tubing, packer or casing.

The Director may require additional or alternative tests if the results presented by the operator are not satisfactory to the Director to demonstrate there is no movement of fluid into or between USDWs resulting from injection activity. Results of MI tests shall be submitted to the Director as soon as possible but no later than sixty (60) days after the test is complete.

#### 2. Mechanical Integrity Test Methods and Criteria

EPA-approved methods shall be used to demonstrate mechanical integrity. Ground Water Section Guidance No. 34 "Cement Bond Logging Techniques and Interpretation", Ground Water Section Guidance No. 37, "Demonstrating Part II (External) Mechanical Integrity for a Class II injection well permit", and Ground Water Section Guidance No. 39, "Pressure Testing Injection Wells for Part I (Internal) Mechanical Integrity" are available from EPA and will be provided upon request.

The Director may stipulate specific test methods and criteria best suited for a specific well construction and injection operation.

#### 3. Notification Prior to Testing.

The Permittee shall notify the Director at least 30 days prior to any scheduled mechanical integrity test. The Director may allow a shorter notification period if it would be sufficient to enable EPA to witness the mechanical integrity test. Notification may be in the form of a yearly or quarterly schedule of planned mechanical integrity tests, or it may be on an individual basis.

#### 4. Loss of Mechanical Integrity.

If the well fails to demonstrate mechanical integrity during a test, or a loss of mechanical integrity becomes evident during operation (such as presence of pressure in the TCA, water flowing at the surface, etc.), the Permittee shall notify the Director within 24 hours (see Part III Section E Paragraph 11(e) of this Permit) and the well shall be shut-in within 48 hours unless the Director requires immediate shut-in.

Within five days, the Permittee shall submit a follow-up written report that documents test results, repairs undertaken or a proposed remedial action plan.

Injection operations shall not be resumed until after the well has successfully been repaired and demonstrated mechanical integrity, and the Director has provided approval to resume injection.

#### Section C. WELL OPERATION

INJECTION BETWEEN THE OUTERMOST CASING PROTECTING UNDERGROUND SOURCES OF DRINKING WATER AND THE WELL BORE IS PROHIBITED.

Injection is approved under the following conditions:

#### 1. Requirements Prior to Commencing Injection.

Well injection, including for new wells authorized by an Area Permit under 40 CFR 144.33 (c), may commence only after all well construction and pre-injection requirements herein have been met and approved. The Permittee may not commence injection until construction is complete, and

- (a) The Permittee has submitted to the Director a notice of completion of construction and a completed EPA Form 7520-10 or 7520-12; all applicable logging and testing requirements of this Permit (see APPENDIX B) have been fulfilled and the records submitted to the Director; mechanical integrity pursuant to 40 CFR 146.8 and Part II Section B of this Permit has been demonstrated; and
  - (i) The Director has inspected or otherwise reviewed the new injection well and finds it is in compliance with the conditions of the Permit; or
  - (ii) The Permittee has not received notice from the Director of his or her intent to inspect or otherwise review the new injection well within 13 days of the date of the notice in Paragraph 1a, in which case prior inspection or review is waived and the Permittee may commence injection.

#### 2. Injection Interval.

Injection is permitted only within the approved injection interval, listed in APPENDIX C. Additional individual injection perforations may be added provided that they remain within the approved injection interval and the Permittee provides notice to the Director in accordance with Part II, Section A, Paragraph 6.

#### 3. Injection Pressure Limitation

- (a) The permitted Maximum Allowable Injection Pressure (MAIP), measured at the wellhead, is found in APPENDIX C. Injection pressure shall not exceed the amount the Director determines is appropriate to ensure that injection does not initiate new fractures or propagate existing fractures in the confining zone adjacent to USDWs. In no case shall injection pressure cause the movement of injection or formation fluids into a USDW.
- (b) The Permittee may request a change of the MAIP, or the MAIP may be increased or decreased by the Director in order to ensure that the requirements in Paragraph (a) above are fulfilled. The Permitee may be required to conduct a step rate injection test or other suitable test to provide information for determining the fracture pressure of the injection zone. Change of the permitted MAIP by the Director shall be by modification of this Permit and APPENDIX C.

#### 4. Injection Volume Limitation.

Injection volume is limited to the total volume specified in APPENDIX C.

#### 5. Injection Fluid Limitation.

Injected fluids are limited to those identified in 40 CFR 144.6(b)(2) as fluids used for enhanced recovery of oil or natural gas, including those which are brought to the surface in connection with conventional oil or natural gas production that may be commingled with waste waters from gas plants which are an integral part of production operations unless those waters are classified as a hazardous waste at the time of injection, pursuant to 40 CFR 144.6(b). Non-exempt wastes, including unused fracturing fluids or acids, gas plant cooling tower cleaning wastes, service wastes and vacuum truck wastes, are NOT approved for injection. This well is NOT approved for commercial brine injection, industrial waste fluid disposal or injection of hazardous waste as defined by CFR 40 Part 261. The Permittee shall provide a listing of the sources of injected fluids in accordance with the reporting requirements in Part II Section D Paragraph 4 and APPENDIX D of this Permit.

#### 6. Tubing-Casing Annulus (TCA)

The tubing-casing annulus (TCA) shall be filled with water treated with a corrosion inhibitor, or other fluid approved by the Director. The TCA valve shall remain closed during normal operating conditions and the TCA pressure shall be maintained at zero (0) psi.

If TCA pressure cannot be maintained at zero (0) psi, the Permittee shall follow the procedures in Ground Water Section Guidance No. 35 "Procedures to follow when excessive annular pressure is observed on a well."

#### Section D. MONITORING, RECORDKEEPING, AND REPORTING OF RESULTS

#### 1. Monitoring Parameters, Frequency, Records and Reports.

Monitoring parameters are specified in APPENDIX D. Pressure monitoring recordings shall be taken at the wellhead. The listed parameters are to be monitored, recorded and reported at the frequency indicated in APPENDIX D even during periods when the well is not operating.

Monitoring records must include:

- (a) the date, time, exact place and the results of the observation, sampling, measurement, or analysis, and;
- (b) the name of the individual(s) who performed the observation, sampling, measurement, or analysis, and;
- (c) the analytical techniques or methods used for analysis.

#### 2. Monitoring Methods.

(a) Monitoring observations, measurements, samples, etc. taken for the purpose of complying with these requirements shall be representative of the activity or condition being monitored.

- (b) Methods used to monitor the nature of the injected fluids must comply with analytical methods cited and described in Table 1 of 40 CFR 136.3 or Appendix III of 40 CFR 261, or by other methods that have been approved in writing by the Director.
- (c) Injection pressure, annulus pressure, injection rate, and cumulative injected volumes shall be observed and recorded at the wellhead under normal operating conditions, and all parameters shall be observed simultaneously to provide a clear depiction of well operation.
- (d) Pressures are to be measured in pounds per square inch (psi).
- (e) Fluid volumes are to be measured in standard oil field barrels (bbl).
- (f) Fluid rates are to be measured in barrels per day (bbl/day).

#### 3. Records Retention.

- (a) Records of calibration and maintenance, and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit shall be retained for a period of AT LEAST THREE (3) YEARS from the date of the sample, measurement, report, or application. This period may be extended anytime prior to its expiration by request of the Director.
- (b) Records of the nature and composition of all injected fluids must be retained until three (3) years after the completion of any plugging and abandonment (P&A) procedures specified under 40 CFR 144.52(a)(6) or under Part 146 Subpart G, as appropriate. The Director may require the Permittee to deliver the records to the Director at the conclusion of the retention period. The Permittee shall continue to retain the records after the three (3) year retention period unless the Permittee delivers the records to the Director or obtains written approval from the Director to discard the records.

#### 4. Annual Reports.

Whether the well is operating or not, the Permittee shall submit an Annual Report to the Director that summarizes the results of the monitoring required by Part II Section D and APPENDIX D.

The first Annual Report shall cover the period from the effective date of the Permit through December 31 of that year. Subsequent Annual Reports shall cover the period from January 1 through December 31 of the reporting year. Annual Reports shall be submitted by February 15 of the year following data collection. EPA Form 7520-11 may be copied and shall be used to submit the Annual Report, however, the monitoring requirements specified in this Permit are mandatory even if EPA Form 7520-11 indicates otherwise.

#### Section E. PLUGGING AND ABANDONMENT

#### 1. Notification of Well Abandonment, Conversion or Closure.

The Permittee shall notify the Director in writing at least forty-five (45) days prior to: 1) plugging and abandoning an injection well, 2) converting to a non-injection well, and 3) in the case of an Area Permit, before closure of the project.

#### 2. Well Plugging Requirements

Prior to abandonment, the injection well shall be plugged with cement in a manner which isolates the injection zone and prevents the movement of fluids into or between underground sources of drinking water, and in accordance with 40 CFR 146.10 and other applicable Federal, State or local law or regulations. Tubing, packer and other downhole apparatus shall be removed. Cement with additives such as accelerators and retarders that control or enhance cement properties may be used for plugs; however, volume-extending additives and gel cements are not approved for plug use. Plug placement shall be verified by tagging. Plugging gel of at least 9.6 lb/gal shall be placed between all plugs. A minimum 50 ft surface plug shall be set inside and outside of the surface casing to seal pathways for fluid migration into the subsurface. The Plugging Record must be certified as accurate and complete by the person responsible for the plugging operation. Prior to placement of the cement plug(s) the well shall be in a state of static equilibrium with the mud weight equalized top to bottom, either by circulating the mud in the well at least once or by a comparable method prescribed by the Director.

#### 3. Approved Plugging and Abandonment Plan.

The approved plugging and abandonment plan is incorporated into this Permit as APPENDIX E. Changes to the approved plugging and abandonment plan must be approved by the Director prior to beginning plugging operations. The Director also may require revision of the approved plugging and abandonment plan at any time prior to plugging the well.

#### 4. Forty Five (45) Day Notice of Plugging and Abandonment.

The Permittee shall notify the Director at least forty-five (45) days prior to plugging and abandoning a well and provide notice of any anticipated change to the approved plugging and abanonment plan.

#### 5. Plugging and Abandonment Report.

Within sixty (60) days after plugging a well, the Permittee shall submit a report (EPA Form 7520-13) to the Director. The plugging report shall be certified as accurate by the person who performed the plugging operation. Such report shall consist of either:

- (a) A statement that the well was plugged in accordance with the approved plugging and abandonment plan; or
- (b) Where actual plugging differed from the approved plugging and abandonment plan, an updated version of the plan, on the form supplied by the Director, specifying the differences.

#### 6. Inactive Wells.

After any period of two years during which there is no injection the Permittee shall plug and abandon the well in accordance with Part II Section E Paragraph 2 of this Permit unless the Permittee:

- (a) Provides written notice to the Director;
- (b) Describes the actions or procedures the Permittee will take to ensure that the well will not endanger USDWs during the period of inactivity. These actions and procedures shall include compliance with mechanical integrity demonstration, Financial Responsibility and all other permit requirements designed to protect USDWs; and
- (c) Receives written notice by the Director temporarily waiving plugging and abandonment requirements.

#### PART III. CONDITIONS APPLICABLE TO ALL PERMITS

#### Section A. EFFECT OF PERMIT

The Permittee is allowed to engage in underground injection in accordance with the conditions of this Permit. The Permittee shall not construct, operate, maintain, convert, plug, abandon, or conduct any other activity in a manner that allows the movement of fluid containing any contaminant into underground sources of drinking water, if the presence of that contaminant may cause a violation of any primary drinking water regulation under 40 CFR 142 or may otherwise adversely affect the health of persons. Any underground injection activity not authorized by this Permit or by rule is prohibited. Issuance of this Permit does not convey property rights of any sort or any exclusive privilege; nor does it authorize any injury to persons or property, any invasion of other private rights, or any infringement of any other Federal, State or local law or regulations. Compliance with the terms of this Permit does not constitute a defense to any enforcement action brought under the provisions of Section 1431 of the Safe Drinking Water Act (SDWA) or any other law governing protection of public health or the environment, for any imminent and substantial endangerment to human health or the environment, nor does it serve as a shield to the Permittee's independent obligation to comply with all UIC regulations. Nothing in this Permit relieves the Permittee of any duties under applicable regulations.

#### Section B. CHANGES TO PERMIT CONDITIONS

#### 1. Modification, Reissuance, or Termination.

The Director may, for cause or upon a request from the Permittee, modify, revoke and reissue, or terminate this Permit in accordance with 40 CFR 124.5, 144.12, 144.39, and 144.40. Also, this Permit is subject to minor modification for causes as specified in 40 CFR 144.41. The filing of a request for modification, revocation and reissuance, termination, or the notification of planned changes or anticipated noncompliance on the part of the Permittee does not stay the applicability or enforceability of any condition of this Permit.

#### 2. Conversions.

The Director may, for cause or upon a written request from the Permittee, allow conversion of the well from a Class II injection well to a non-Class II well. Conversion may not proceed until the Permittee receives written approval from the Director. Conditions of such conversion may include but are not limited to, approval of the proposed well rework, follow up demonstration of mechanical integrity, well-specific monitoring and reporting following the conversion, and demonstration of practical use of the converted configuration.

#### 3. Transfer of Permit.

Under 40 CFR 144.38, this Permit is transferable provided the current Permittee notifies the Director at least thirty (30) days in advance of the proposed transfer date (EPA Form 7520-7) and provides a written agreement between the existing and new Permittees containing a specific date for transfer of Permit responsibility, coverage and liability between them. The notice shall adequately demonstrate that the financial responsibility requirements of 40 CFR 144.52(a)(7) will be met by the new Permittee. The Director may require modification or revocation and reissuance of the Permit to change the name of the Permittee and incorporate such other requirements as may be necessary under the Safe Drinking Water Act; in some cases, modification or revocation and reissuance is mandatory.

#### 4. Permittee Change of Address.

Upon the Permittee's change of address, or whenever the operator changes the address where monitoring records are kept, the Permittee must provide written notice to the Director within 30 days.

#### 5. Construction Changes, Workovers, Logging and Testing Data

The Permittee shall give advance notice to the Director, and shall obtain the Director's written approval prior to any physical alterations or additions to the permitted facility. Alterations or workovers shall meet all conditions as set forth in this permit. The Permittee shall record any changes to the well construction on a Well Rework Record (EPA Form 7520-12), and shall provide this and any other record of well workovers, logging, or test data to EPA within sixty (60) days of completion of the activity.

Following the completion of any well workovers or alterations which affect the casing, tubing, or packer, a successful demonstration of mechanical integrity (Part III, Section F of this Permit) shall be made, and written authorization from the Director received, prior to resuming injection activities.

#### Section C. SEVERABILITY

The Provisions of this Permit are severable, and if any provision of this Permit or the application of any provision of this Permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this Permit shall not be affected thereby.

#### Section D. CONFIDENTIALITY

In accordance with 40 CFR Part 2 and 40 CFR 144.5, information submitted to EPA pursuant to this Permit may be claimed as confidential by the submitter. Any such claim must be asserted at the time of submission by stamping the words "confidential business information" on each page containing such information. If no claim is made at the time of submission, EPA may make the information available to the public without further notice. If a claim is asserted, the validity of the claim will be assessed in accordance with the procedures in 40 CFR Part 2 (Public Information). Claims of confidentiality for the following information will be denied:

- The name and address of the Permittee, and
- information which deals with the existence, absence or level of contaminants in drinking water.

#### Section E. GENERAL PERMIT REQUIREMENTS

#### 1. Duty to Comply.

The Permittee must comply with all conditions of this Permit. Any noncompliance constitutes a violation of the Safe Drinking Water Act (SDWA) and is grounds for enforcement action; for Permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application; except that the Permittee need not comply with the provisions of this Permit to the extent and for the duration such noncompliance is authorized in an emergency permit under 40 CFR 144.34. All violations of the SDWA may subject the Permittee to penalties and/or criminal prosecution as specified in Section 1423 of the SDWA.

#### 2. Duty to Reapply.

If the Permittee wishes to continue an activity regulated by this Permit after the expiration date of this Permit, under 40 CFR 144.37 the Permittee must apply for a new permit prior to the expiration date.

#### 3. Need to Halt or Reduce Activity Not a Defense.

It shall not be a defense for a Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this Permit.

#### 4. Duty to Mitigate.

The Permittee shall take all reasonable steps to minimize or correct any adverse impact on the environment resulting from noncompliance with this Permit.

#### 5. Proper Operation and Maintenance.

The Permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Permittee to achieve compliance with the conditions of this Permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of this Permit.

#### 6. Permit Actions.

This Permit may be modified, revoked and reissued or teminated for cause. The filing of a request by the Permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

#### 7. Property Rights.

This Permit does not convey any property rights of any sort, or any exclusive privilege.

#### 8. Duty to Provide Information.

The Permittee shall furnish to the Director, within a time specified, any information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The Permittee shall also furnish to the Director, upon request, copies of records required to be kept by this Permit. The Permittee is required to submit any information required by this Permit or by the Director to the mailing address designated in writing by the Director.

#### 9. Inspection and Entry.

The Permittee shall allow the Director, or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to:

(a) Enter upon the Permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this Permit;

- (b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Permit;
- (c) Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Permit; and,
- (d) Sample or monitor at reasonable times, for the purpose of assuring permit compliance or as otherwise authorized by the SDWA, any substances or parameters at any location.

#### 10. Signatory Requirements.

All applications, reports or other information submitted to the Director shall be signed and certified according to 40 CFR 144.32. This section explains the requirements for persons duly authorized to sign documents, and provides wording for required certification.

#### 11. Reporting Requirements.

- (a) Planned changes. The Permittee shall give notice to the Director as soon as possible of any planned changes, physical alterations or additions to the permitted facility, and prior to commencing such changes.
- (b) Anticipated noncompliance. The Permittee shall give advance notice to the Director of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.
- (c) Monitoring Reports. Monitoring results shall be reported at the intervals specified in this Permit.
- (d) Compliance schedules. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this Permit shall be submitted no later than 30 days following each schedule date.
- (e) Twenty-four hour reporting. The Permittee shall report to the Director any noncompliance which may endanger human health or the environment, including:
  - (i) Any monitoring or other information which indicates that any contaminant may cause endangerment to a USDW; or
  - (ii) Any noncompliance with a permit condition or malfunction of the injection system which may cause fluid migration into or between USDWs.

Information shall be provided, either directly or by leaving a message, within twenty-four (24) hours from the time the permittee becomes aware of the circumstances by telephoning (800) 227-8917 and requesting EPA Region VIII UIC Program Compliance and Technical Enforcement Director, or by contacting the EPA Region VIII Emergency Operations Center at (303) 293-1788.

In addition, a follow up written report shall be provided to the Director within five (5) days of the time the Permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause, the period of noncompliance including exact dates and times, and if the noncompliance has not been corrected the anticipated time it is expected to continue; and the steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance.

- (f) Oil Spill and Chemical Release Reporting: The Permittee shall comply with all reporting requirements related to the occurence of oil spills and chemical releases by contacting the National Response Center (NRC) at (800) 424-8802, (202) 267-2675, or through the NRC website http://www.nrc.uscg.mil/index.htm.
- (g) Other Noncompliance. The Permittee shall report all instances of noncompliance not reported under paragraphs Part III, Section E Paragraph 11(b) or Section E, Paragraph 11(e) at the time the monitoring reports are submitted. The reports shall contain the information listed in Paragraph 11(e) of this Section.
- (h) Other information. Where the Permittee becomes aware that it failed to submit any relevant facts in the permit application, or submitted incorrect information in a permit application or in any report to the Director, the Permittee shall promptly submit such facts or information to the Director.

#### Section F. FINANCIAL RESPONSIBILITY

#### 1. Method of Providing Financial Responsibility.

The Permittee shall maintain continuous compliance with the requirement to maintain financial responsibility and resources to close, plug, and abandon the underground injection well(s). No substitution of a demonstration of financial responsibility shall become effective until the Permittee receives written notification from the Director that the alternative demonstration of financial responsibility is acceptable. The Director may, on a periodic basis, require the holder of a permit to revise the estimate of the resources needed to plug and abandon the well to reflect changes in such costs and may require the Permittee to provide a revised demonstration of financial responsibility.

#### 2. Insolvency.

In the event of:

- (a) the bankruptcy of the trustee or issuing institution of the financial mechanism; or
- (b) suspension or revocation of the authority of the trustee institution to act as trustee; or

(c) the institution issuing the financial mechanism losing its authority to issue such an instrument

the Permittee must notify the Director in writing, within ten (10) business days, and the Permittee must establish other financial assurance or liability coverage acceptable to the Director within sixty (60) days after any event specified in (a), (b), or (c) above.

The Permittee must also notify the Director by certified mail of the commencement of voluntary or involuntary proceedings under Title 11 (Bankruptcy), U.S. Code naming the owner or operator as debtor, within ten (10) business days after the commencement of the proceeding. A guarantor, if named as debtor of a corporate guarantee, must make such a notification as required under the terms of the guarantee.

amal, renvi

#### **APPENDIX A**

#### WELL CONSTRUCTION REQUIREMENTS

See diagram

Federal 11-33-8-18 was drilled to a total depth of 6,090 feet (KB) feet in the Basal Carbonate Member.

Surface casing (8-5/8 inch) was set at a depth of 327 feet in a 12-1/4 inch hole using 160 sacks of cement which was circulated to the surface.

Production casing (5-1/2 inch) was set at a depth of 6,071 feet (KB) in a 7-7/8 inch hole with 325 sacks of Prem. Lite II mixed and 450 sacks of 50/50 POZ.

The Cement Bond Log (CBL) identifies adequate cement bond in the Confining Zone.

The schematic diagram shows enhanced recovery injection perforations in the Douglas Creek Member of the Green River Formation. Additional perforations may be added at a later time between the depths of 4,047 feet and the top of the Wasatch Formation (Estimated to be 6,137 feet) provided the operator first notifies the Director and later submits an updated well completion report (EPA Form 7520-12) and schematic diagram.

The packer will be set no higher than 100 feet above the top perforation.

## UT22/51-08472

### Federal 11-33-8-18

Spud Date: 01/06/06 Put on Production: 02/28/06

GL: 4903' KB: 4915'

Proposed Injection Wellbore Diagram

327

Initial Production: MCFD, BWPD

BOPD,

Cement Top @132'

153

SURFACE CASING CSG SIZE: 8-5/8" BZSE US DWS

PRODUCTION CASING

LENGTH: 142 jts. (6475.71')

DEPTH LANDED: 6070.71' KB

TUBING 80% BONS

NO. OF JOINTS: 182 jts. (5875.75')

TOTAL STRING LENGTH: EOT @ 5955.89'

TUBING ANCHOR: 5887,75° NO. OF JOINTS: 1 jts (31.95') SEATING NIPPLE: 2-7/8" (1.10') SN LANDED AT: 5922.501 NO. OF JOINTS: 1 jt. (31.84")

WEIGHT: 24#

LENGTH: 7 jts. (315.24')

DEPTH LANDED: 327.09' KB (Fren Kive)

CEMENT DATA: 325 sxs Prem. Lite II mixed & 450 sxs 50/50 POZ.

3480-4364

HOLE SIZE:12-1/4"

CSG SIZE: 5-1/2"

GRADE: J-55

WEIGHT: 15.5#

HOLE SIZE: 7-7/8"

CEMENT TOP: 132

CEMENT DATA: 160 sxs Class "G" cmt,

FRAC JOB 02/21/06 5786-5920

Frac CP3, CP4, CP5 sands as follows: 34856# 20/40 sand in 417 bbls Lightning 17 frac fluid. Treated @ avg press of 1483 psi w/avg rate of 24.8 BPM. ISIP 1550 psi. Calc flush: 5918 gal. Actual flush: 5208 gal.

02/22/06 5360-5391 Frac A3, A4 sands as follows:

169443# 20/40 sand in 1140 bbls Lightning17 frac fluid. Treated @ avg press of 2355 psi w/avg rate of 24.5 BPM. ISIP 3280 psi. Calc flush: 5389 gal. Actual flush: 4788 gal.

02/22/06 5005-5012 Frac C sands as follows:

17076# 20/40 sand in 261 bbls Lightning 17 frac fluid. Treated @ avg press of 3950 ps w/avg rate of 14.4 BPM. ISIP 1960 psi. Calc flush: 5010 gal. Actual flush: 4872 gal. Stuck Pump. Update rod and tubing details.

Major Workover. Updated rod & tubing

03/17/06

11-5-07

details.

8-6-08 4883-4904 Frac D2 sds as follows:

82,518# 20/40 sand in 709 bbls of Lightning 17 fluid. Treated w/ ave pressure of 2401 psi @ ave rate of 23.25 BPM, ISIP 2004 psi.

Actual flush: 4796

PERFORATION RECORD

02/09/06 5912-5920' 4 JSPF

02/09/06 5831-5835' 4 JSPF

5786-5790'

5360-53911

5005-50121

02/09/06

02/22/06

8/6/08

3093- 3088 Trons 3088-3106 Mahogany Beach

3966- 4047 Confirm Zone 4047 Garden Gulet

4811 Douglas Crede

Packer @ 4848\*

5005-5012

5360-53911

5786-5790

5831-5835\*

5912-5920

COVE Basal Carbonate

TD @ 6090

Est-Was Ach 6187

NEWFIELD

Federal 11-33-8-18

2131' FSL & 2079' FWI.

NE/SW Section 33-T8S-R18E

Uintah Co, Utah

API #43-047-35972; Lease #UTU-65969

32 holes

16 holes

124 holes

28 holes

4 JSPF

4 JSPF

4 JSPF

4883-4904' 4 JSPF 84 holes

#### **APPENDIX B**

# LOGGING AND TESTING REQUIREMENTS

#### Logs.

Logs will be conducted according to current UIC guidance. It is the responsibility of the Permittee to obtain and use guidance prior to conducting any well logging required as a condition of this permit.

#### NO LOGGING REQUIREMENTS

#### Tests.

Tests will be conducted according to current UIC guidance. It is the responsibility of the Permittee to obtain and use guidance prior to conducting any well test required as a condition of this permit.

TYPE OF TEST	DATE DUE
Standard Annulus Pressure	Prior to receiving authorization to inject and at least once within any five (5) year priod following the last successful test.
Pore Pressure	Prior to receiving authorization to inject.

#### APPENDIX C

#### **OPERATING REQUIREMENTS**

#### **MAXIMUM ALLOWABLE INJECTION PRESSURE:**

Maximum Allowable Injection Pressure (MAIP) as measured at the surface shall not exceed the pressure(s) listed below.

All Maria and a transfer from the control of the co	AND THE PROPERTY OF THE PROPER
	MAXIMUM ALLOWED INJECTION PRESSURE (psi)
WELL NAME	ZONE 1 (Upper)
Federal 11-33-8-18	1,270

#### **INJECTION INTERVAL(S):**

Injection is permitted only within the approved injection interval listed below. Injection perforations may be altered provided they remain within the approved injection interval and the Permittee provides notice to the Director in accordance with Part II, Section A, Paragraph 6. Specific injection perforations can be found in Appendix A.

APPROVED INJECTION FRACTURE INTERVAL (KB, ft) GRADIENT FORMATION NAME (DSi/ft)	VELL NAME: Federal 11-33-8-18		
	FORMATION NAME		
	Green River	4,047.00 - 6,137.00	0.700

#### **ANNULUS PRESSURE:**

The annulus pressure shall be maintained at zero (0) psi as measured at the wellhead. If this pressure cannot be maintained, the Permittee shall follow the procedures listed under Part II, Section C. 6. of this permit.

#### **MAXIMUM INJECTION VOLUME:**

There is no limitation on the number of barrels per day (bbls/day) of water that shall be injected into this well, provided further that in no case shall injection pressure exceed that limit shown in Appendix C.

#### APPENDIX D

### MONITORING AND REPORTING PARAMETERS

This is a listing of the parameters required to be observed, recorded, and reported. Refer to the permit Part II, Section D, for detailed requirements for observing, recording, and reporting these parameters.

OBSERVE I	MONTHLY AND RECORD AT LEAST ONCE EVERY THIRTY DAYS
00000	Injection pressure (psig)
OBSERVE AND	Annulus pressure(s) (psig)
RECORD	Injection rate (bbl/day)
	Fluid volume injected since the well began injecting (bbls)

	ANNUALLY
ANALYZE	Injected fluid total dissolved solids (mg/l)
	Injected fluid specific gravity
	Injected fluid specific conductivity
	Injected fluid pH

	ANNUALLY	
	Each month's maximum and averaged injection pressures (psig)	
	Each month's maximum and minimum annulus pressure(s) (psig)	
DEDORT	Each month's injected volume (bbl)	
REPORT	Fluid volume injected since the well began injecting (bbl)	
	Written results of annual injected fluid analysis	
	Sources of all fluids injected during the year	

In addition to these items, additional Logging and Testing results may be required periodically. For a list of those items and their due dates, please refer to APPENDIX B - LOGGING AND TESTING REQUIREMENTS.

#### APPENDIX E

#### PLUGGING AND ABANDONMENT REQUIREMENTS

See diagram.

The well shall be plugged in a manner that isolates the injection zone and prevents movement of fluid into or between USDWs and in accordance with other applicable Federal, State or local law or regulation. Tubing, packers, and any downhole apparatus shall be removed. Class A, C, G, and H cements, with additives such as accelerators and retarders that control or enhance cement properties, may be used for plugs. However, volume extending additives and gel cements are not approved for plug use. Plug placement shall be verified by tagging. Plugging gel of at least 9.2 lb/gal shall be placed between all plugs. Within sixty (60) days after plugging, the owner or operator shall submit Plugging Record (EPA Form 7520-13) to the Director. The Plugging Record must be certified as accurate and complete by the person responsible for the plugging operation. At a minimum, the following plugs are required:

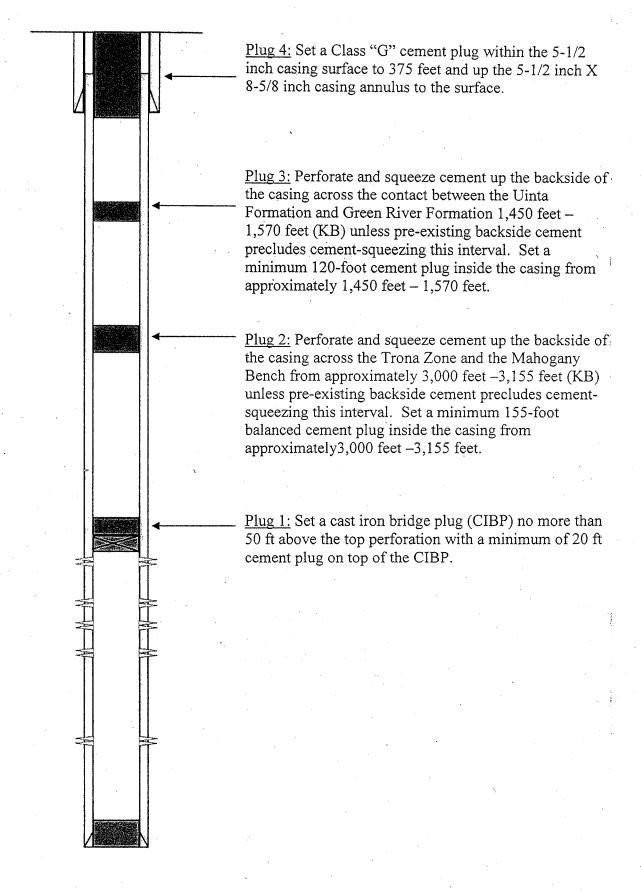
PLUG NO. 1: Seal Injection Zone: Set a cast iron bridge plug (CIBP) no more than fifty (50) feet above the top injection perforation. Place at least twenty (20) feet of cement plug on top of the CIBP.

PLUG NO. 2: Seal Mahogany Shale and Trona intervals: Squeeze a cement plug on the backside of the 5-1/2 inch casing across the Trona Zone and the Mahogany Shale approximately 3,000 feet to 3,155 feet (unless pre-existing backside cement precludes cement-squeezing this interval) followed by a minimum 155-foot balanced cement plug inside the 5-1/2 inch casing across the Trona Zone and the Mahogany Shale, approximately 3,000 feet to 3,155 feet.

PLUG NO. 3: Seal USDWs: Squeeze a cement plug (1,450 feet - 1,570 feet) on the backside of the 5-1/2 inch casing across the base of the Uinta formation (unless pre-existing backside cement precludes cement-squeezing this interval), followed by a minimum 120-foot (1,450 feet - 1,570 feet) balanced cement plug.

PLUG NO.4: Seal Surface: Set a Class "G" cement plug within the 5-1/2 inch casing to 375 feet and up the 5-1/2 inch by 8-5/8 inch casings annulus to the surface.

## Plugging and Abandonment Diagram for Federal No. 11-33-8-18



#### APPENDIX F

#### CORRECTIVE ACTION REQUIREMENTS

Federal No. 14-33-8-18 shall be monitored weekly at the surface for evidence of fluid movement out of the injection zone.

In addition, Newfield developed a corrective action monitoring program, effective July 10, 2008, entitled "Procedure related to proposed Class II Enhanced Oil Recovery Injection Wells determined by the EPA to have specific Area of Review (AOR) wells with inadequate cement across the Confining Zone".

If possible fluid movement out of the injection zone is identified, either through the weekly monitoring, through Newfield's July 10, 2008 procedure described above, or through any other means (for example, evidence of fluid flow or increased bradenhead annulus pressure readings, tubing-casing annulus pressure readings, or other evidence of a mechanical integrity failure), the Permittee will shut in the Federal No. 11-33-8-18 well immediately and notify the Director. No injection into the Federal No. 11-33-8-18 well will be permitted until the Permittee has notfied the Director that the situation has been resolved, submitted Rework Records (EPA Form No. 7520-12) and a schematic diagram, and received authorization from the Director to recommence injection.t.



RE: Procedure related to proposed Class II Enhanced Oil Recovery Injection Wells determined by the EPA to have specific Area of Review (AOR) wells with inadequate cement across the confining zone

Effective July 10, 2008 Newfield Production Company will implement the following procedure to address concerns related to protection of Underground Sources of Drinking Water (USDW) in AOR wells where the interval of cement bond index across the confining zone behind pipe has been determined to be inadequate. The procedure is intended to meet the corrective action requirements found in the UIC Class II permit, as well as provide data that could be used to detect and prevent fluid movement out of the proposed injection zone.

- 1) Establish baseline production casing by surface casing annulus pressures prior to water injection in subject well with a calibrated gauge.
- 2) Record the baseline pressure, report findings to Newfield engineering group and keep on file so it is available upon request
- 3) Place injection well in service. Run packer integrity and radioactive tracer logs to verify wellbore integrity and determine zones taking water.
- 4) Construct a geologic cross section showing zones taking water and their geologic equivalent zones in the AOR wells.
- 5) Submit a report of the packer integrity log, radioactive tracer log, and geologic cross section to to the Newfield engineering staff for review and keep on file so it is available upon request
- 6) Weekly observations of the site will be made by Newfield during normal well operating activities. Any surface discharge of fluids will be reported immediately.
- 7) After injection well is placed in service, weekly observations of annulus pressure will be made and compared to baseline pressure and will be recorded once monthly. The recorded pressure information will be kept on file and be available upon request.
- 8) If pressure increases by more than 10% above baseline at any time in an AOR well with insufficient cement bond, Newfield will run a temperature survey log in subject well. This log, in concert with the geologic crossection, will enable the determination of water movement in the open hole by production casing annulus through a shift in geothermal gradient.
- 9) If water movement is determined in annulus, Newfield will shut in the injection well and repair the production casing by open hole annulus or leave the injection well out of service.

## STATEMENT OF BASIS

### NEWFIELD PRODUCTION COMPANY FEDERAL 11-33-8-18 UINTAH COUNTY, UT

#### **EPA PERMIT NO. UT22151-08472**

**CONTACT:** Emmett Schmitz

U. S. Environmental Protection Agency Ground Water Program, 8P-W-GW

1595 Wynkoop Street

Denver, Colorado 80202-1129

Telephone: 1-800-227-8917 ext. 312-6174

This STATEMENT OF BASIS gives the derivation of site-specific UIC Permit conditions and reasons for them. Referenced sections and conditions correspond to sections and conditions in the Permit.

EPA UIC permits regulate the injection of fluids into underground injection wells so that the injection does not endanger underground sources of drinking water. EPA UIC permit conditions are based upon the authorities set forth in regulatory provisions at 40 CFR Parts 144 and 146, and address potential impacts to underground sources of drinking water. Under 40 CFR 144.35 Issuance of this permit does not convey any property rights of any sort or any exclusive privilege, nor authorize injury to persons or property of invasion of other private rights, or any infringement of other Federal, State or local laws or regulations. Under 40 CFR 144 Subpart D, certain conditions apply to all UIC Permits and may be incorporated either expressly or by reference. General Permit conditions for which the content is mandatory and not subject to site-specific differences (40 CFR Parts 144, 146 and 147) are not discussed in this document.

#### PART I. General Information and Description of Facility

Newfield Production Company 1001 Seventeenth Street, Suite 2000 Denver, CO 80202

on

July 14, 2009

submitted an application for an Underground Injection Control (UIC) Program Permit or Permit Modification for the following injection well or wells:

Federal 11-33-8-18 2,131' FSL & 2,079' FWL, NESW S33, T8S, R18E Uintah County, UT

Regulations specific to Uintah-Ouray Indian Reservation injection wells are found at 40 CFR 147 Subpart TT.

The application, including the required information and data necessary to issue or modify a UIC Permit in accordance with 40 CFR Parts 144, 146 and 147, was reviewed and determined by EPA to be complete.

The Permit will expire upon delegation of primary enforcement responsibility (primacy) for applicable portions of the UIC Program to the Ute Indian Tribe or the State of Utah unless the delegated agency has the authority and chooses to adopt and enforce this Permit as a Tribal or State Permit.

TABLE 1.1 shows the status of the well or wells as "New", "Existing", or "Conversion" and for Existing shows the original date of injection operation. Well authorization "by rule" under 40 CFR Part 144 Subpart C expires automatically on the Effective Date of an issued UIC Permit.

Federal No. 11-33-8-18 is currently an active Green River Formation Douglas Creek Member oil well. It is the initial intent of the applicant to use current production perforations for Class II enhanced recovery injection. Federal No. 11-33-8-18 has total depth (TD) in the Basal Carbonate Member. The submitted Cement Bond Log (CBL) does identify adequate Confining Zone annulus cement.

	TABLE 1.1	
WELL STA	TUS / DATE OF OPERA	TION
	NEW WELLS	
Well Name	Well Status	Date of Operation
Federal 11-33-8-18	New	N/A

### PART II. Permit Considerations (40 CFR 146.24)

### **Hydrogeologic Setting**

Water wells for domestic supply in this area, when present, generally are completed into the shallow alluvium, the Duchesne River Formation, or the underlying Uinta Formation, and the water generally contains approximately 500 to 1,500 mg/l and higher total dissolved solids.

The Uinta-Animas aquifer in the Uinta Basin is present in water-yielding beds of sandstone. conglomerate, and siltstone of the Duchesne River and Uinta Formations, the Renegade Tongue of the Wasatch Formation, and the Douglas Creek Member of the Green River Formation. The Renegade Tongue of the Wasatch Formation and the Douglas Creek Member of the Green River Formation contain an aquifer along the southern and eastern margins of the basin where the rocks primarily consist of fluvial, massive, irregularly bedded sandstone and siltstone. Water-yielding units in the Uinta-Animas aquifer in the Uinta Basin commonly are separated from each other and from the underlying Mesaverde aquifer by units of low permeability composed of claystone, shale, marlstone, or limestone. In the Uinta Basin, for example, the part of the aguifer in the Duchesne River and Uinta Formations ranges in thickness from 0 feet at the southern margin of the aquifer to as much as 9,000 feet in the north-central part of the aquifer. Ground-water recharge to the Uinta-Animas aquifer generally occurs in the areas of higher altitude along the margins of the basin. Ground water is discharged mainly to streams, springs, and by transpiration from vegetation growing along stream valleys. The rate of ground-water withdrawal is small, and natural discharge is approximately equal to recharge. Recharge occurs near the southern margin of the aquifer, and discharge occurs near the White and Green Rivers (from USGS publication HA 730-C). Water samples from Mesaverde sands in the nearby Natural Buttes Unit yielded highly saline water.

#### Geologic Setting (TABLE 2.1)

The proposed enhanced oil recovery injection well is located in the Greater Monument Butte Field, T7-9S and R15-19E, which lies near the center of the broad, gently northward dipping south flank of the Uinta Basin. More than 450 million barrels of oil (63 MT) have been produced from sediments of the Uinta Basin. The Uinta Basin is a topographic and structural trough encompassing an area of more than 9,300 square mi (14,900 km) in northeast Utah. The basin is sharply asymmetrical, with a steep north flank bounded by the east-west-trending Uinta Mountains, and a gently dipping south flank. The Uinta Basin was formed in Paleocene to Eocene time, creating a large area of internal drainage which was filled by the ancestral Lake Uinta. The lacustrine, or fresh water lake-formed, sediments deposited in and around Lake Uinta make up the Uintah and Green River Formations. The southern shore of Lake Uinta was very broad and flat. resulting in large cyclic shifts of the location of the shoreline during the many repeated transgressive and regressive cycles caused by the climatic and tectonic-induced rise and fall of water levels of the lake. Distributary-mouth bars, distributary channels, and near-shore bars are the primary oil producing sandstone reservoirs in the area. (Ref: "Reservoir Characterization of the Lower Green River Formation, Southwest Uinta Basin, Utah Biannual Technical Progress Report, 4/1/99-9/30/99", by C. D. Morgan, Program Manager, November 1999, Contract DE-AC26-98BC15103).

The Duchesne River Formation is absent in this area. Shale and siltstone of the Uintah Formation outcrop and compose the surface rock throughout the area. The lower 600 feet to 800 feet of the Uinta Formation, consisting generally of shale interbedded with occasionally water-bearing sandstone lenses between 5 feet to 20 feet thick, is underlain by the Green River Formation. The

Green River Formation is further subdivided into several Member and local marker units. The cyclic nature of Green River deposition in the southern shore area resulted in numerous stacked. intertonguing deltaic and near-shore sand and silt deposits. Red alluvial shale and siltstone deposits that intertongue with the Green River sediments are of the Colton and Wasatch Formations. Under the Wasatch Formation is the Mesaverde Formation, which consists primarily of continental-origin deposits of interbedded shale, sandstone, and coal.

The geologic dip is about 200 feet per mile, and there are no known surface faults in this area. Veins of gilsonite, a natural resinous hydrocarbon occasionally mined as a resource, occurs in the greater Uintah Basin though it is predominantly found on the eastern margin of the basin near the Colorado border. Vertical veins, generally between 2 feet to 6 feet wide but up to 28 feet wide, may extend many miles in length and occasionally extend as deep as 2,000 feet. In this area within the Greater Monument Butte Field there is one known gilsonite vein. This vein is not considered to present a pathway for migration of fluid out of the injection zone because it terminates at depth of about 2.000 ft, far above the protective confining layer and much deeper injection zone.

### TABLE 2.1 **GEOLOGIC SETTING** Federal 11-33-8-18

Formation Name	Top (ft)	Base (ft)	TDS (mg/l)	Lithology
Uinta: Public. 92	0	153	< 10,000	Sand and shale.
Uinta	153	1,517		Interbedded lacustrine sand, shale and carbonate with fluvial sand and shale.
Green River	1,517	6,137		Interbedded lacustrine sand, shale, evaporite and carbonate with fluvial sand and shale.
Green River: Trona	3,053	3,088	gde yaar too qaaba ay a sahaaqay isaa ugushay aay iii da ba'a — addadad ahaa ah iii da dabahaana ta ii da dabahaana ah ii dabahaana ah ii da dabahaana ah ii da dabahaana ah ii dabahaana ah ii dabahaana ah ii dabahaana ah ii da dabahaana ah ii dabahaa	Evaporite
Greern River: Mahogany Bench	3,088	3,106	A CONTRACTOR OF THE PROPERTY O	Shale
Green River: Confining Zone	3,966	4,047		Shale
Green River: Garden Gulch Mermber	4,047	4,811		Interbedded lacustrine sand, shale and carbonate with fluvial sand and shale.
Green River: Douglas Creek Member	4,811	6,012	38,270	Interbedded lacustrine sand, shale and carbonate with fluvial sand and shale.

Carbonate

#### Proposed Injection Zone(s) (TABLE 2.2)

6,012

Member

Green River: Basal Carbonate

An injection zone is a geological formation, group of formations, or part of a formation that receives fluids through a well. The proposed injection zones are listed in TABLE 2.2.

6,137

Injection will occur into an injection zone that is separated from USDWs by a confining zone which is free of known open faults or fractures within the Area of Review.

The EPA approved interval for Class II enhanced recovery injection is located between the top of the Garden Gulch Member (4,047 feet) and the top of the Wasatch Formation estimated to be 6137 feet.

# TABLE 2.2 INJECTION ZONES

Federal 11-33-8-18

Formation Name	Top (ft)	Base (ft)	TDS (mg/l)	Fracture Gradient (psi/ft)	Porosity	Exempted?*
Green River	4,047	6,137		0.700		N/A
* C - Currently Exempted E - Previously Exempted P - Proposed Exemption N/A - Not Applicable						

#### Confining Zone(s) (TABLE 2.3)

**Formation Name** 

Green River

A confining zone is a geological formation, part of a formation, or a group of formations that limits fluid movement above the injection zone. The confining zone or zones are listed in TABLE 2.3.

The 81-foot (3966 feet - 4047 feet) shale Confining Zone directly overlies the top of the Garden Gulch Member.

# TABLE 2.3 CONFINING ZONES Federal 11-33-8-18

Formation Lithology Top (ft) Base (ft)

3.966

4.047

#### Underground Sources of Drinking Water (USDWs) (TABLE 2.4)

Shale

Aquifers or the portions thereof which contain less than 10,000 mg/l total dissolved solids (TDS) and are being or could in the future be used as a source of drinking water are considered to be USDWs. The USDWs in the area of this facility are identified in TABLE 2.4.

Throughout the Greater Monument Butte Field area undergoing enhanced oil recovery operations, water analyses of the Green River Formation generally exhibit total dissolved solids (TDS) content well in excess of 10,000 mg/l. However, some recent water analyses from the field showed lower TDS values closer to 10,000 mg/l. While rain and surface water recharge into Green River Formation outcrops further south along the Book Cliffs/Roan Cliffs in effect "freshens" the Green River Formation water near those outcrops, in this area of the Monument Butte Field the observed occasional 'freshening' is ascribed to the effective dilution of the originally in-place high TDS water from injection of relatively fresh water for enhanced oil recovery operations. Water samples from deeper Mesaverde Formation sands in the nearby Natural Buttes Unit yield highly saline water.

The State of Utah "Water Wells and Springs" identifies no public water supply wells within the one-quarter (1/4) mile Area-of-Review (AOR) around the Federal No. 11-33-8-18.

Technical Publication No. 92: State of Utah, Department of Natural Resources, cites the base of Underground Sources of Drinking Water (USDW) in the Uinta Formation occur approximately 153 feet from the surface. However, absent definitive information relative to the water quality of the Uinta Formation, from the depth of 153 feet to the base of the Uinta Formation (1,517 feet), the EPA will require, during plugging and abandonment, a cement plug at the base of the Uinta Formation to protect contamination of possible Uinta USDWs.

# TABLE 2.4 UNDERGROUND SOURCES OF DRINKING WATER (USDW) Federal 11-33-8-18

Formation Name	Formation Lithology	Top (ft)	Base (ft)	TDS (mg/l)
Uinta: Public. 92	Sand and shale.	0	153	< 10,000
Uinta	Interbedded lacustrine sand, shale and carbonate with fluvial sand and shale.	153	1,517	

#### PART III. Well Construction (40 CFR 146.22)

Federal 11-33-8-18 was drilled to a total depth of 6,090 feet (KB) feet in the Basal Carbonate Member.

Surface casing (8-5/8 inch) was set at a depth of 327 feet in a 12-1/4 inch hole using 160 sacks of cement which was circulated to the surface.

Production casing (5-1/2 inch) was set at a depth of 6,071 feet (KB) in a 7-7/8 inch hole with 325 sacks of Prem. Lite II mixed and 450 sacks of 50/50 POZ.

The Cement Bond Log (CBL) identifies adequate cement bond in the Confining Zone.

The schematic diagram shows enhanced recovery injection perforations in the Douglas Creek Member of the Green River Formation. Additional perforations may be added at a later time between the depths of 4,047 feet and the top of the Wasatch Formation (Estimated to be 6,137 feet) provided the operator first notifies the Director and later submits an updated well completion report (EPA Form 7520-12) and schematic diagram.

The packer will be set no higher than 100 feet above the top perforation.

# TABLE 3.1 WELL CONSTRUCTION REQUIREMENTS

#### Federal 11-33-8-18

Casing Type	Hole Size (in)	Casing Size (in)	Cased Interval (ft)	Cemented Interval (ft)
Production	7.88	5.50	0 - 6,071	132 - 6,090
Surface	12.25	8.63	0 - 327	0 - 327

The approved well completion plan will be incorporated into the Permit as APPENDIX A and will be binding on the Permittee. Modification of the approved plan is allowed under 40 CFR 144.52(a)(1) provided written approval is obtained from the Director prior to actual modification.

#### Casing and Cementing (TABLE 3.1)

The construction plan for the well or wells proposed for conversion to an injection well was evaluated and determined to be in conformance with standard practices and guidelines that ensure well injection does not result in the movement of fluids into USDWs. Well construction and conversion details for the well or wells are shown in TABLE 3.1.

#### **Tubing and Packer**

Injection tubing is required to be installed from a packer up to the surface inside the well casing. The packer will be set above the uppermost perforation. The tubing and packer are designed to prevent injection fluid from coming into contact with the outermost casing.

#### **Tubing-Casing Annulus (TCA)**.

The TCA allows the casing, tubing and packer to be pressure-tested periodically for mechanical integrity, and will allow for detection of leaks. The TCA will be filled with fresh water treated with a corrosion inhibitor or other fluid approved by the Director.

The tubing/casing annulus must be kept closed at all times so that it can be monitored as required under conditions of the Permit.

#### **Monitoring Devices**

The permittee will be required to install and maintain wellhead equipment that allows for monitoring pressures and providing access for sampling the injected fluid. Required equipment may include but is not limited to: 1) shut-off valves located at the wellhead on the injection tubing and on the TCA; 2) a flow meter that measures the cumulative volume of injected fluid; 3) fittings or pressure gauges attached to the injection tubing and the TCA for monitoring the injection and TCA pressure; and 4) a tap on the injection line, isolated by shut-off valves, for sampling the injected fluid.

All sampling and measurement taken for monitoring must be representative of the monitored activity.

PART IV. Area of Review, Corrective Action Plan (40 CFR 144.55)

# TABLE 4.1 AOR AND CORRECTIVE ACTION

Well Name	Туре	Status (Abandoned Y/N)	Total Depth (ft)	TOC Depth (ft)	CAP Required (Y/N)
Fdderal 10-33-8-18	Producer	No	6,080	620	No
Federal No. 13-33DR-8-18	Producer	No	6,080	200	No
Federal No. 14-33-8-18	Producer	No	6,085	160	Yes
Federal No. 6-33-8-18	Producer	No	6,200	902	No

TABLE 4.1 lists the wells in the Area of Review ("AOR") and shows the well type, operating status, depth, top of casing cement ("TOC") and whether a Corrective Action Plan ("CAP") is required for the well.

#### **Area Of Review**

Applicants for Class I, II (other than "existing" wells) or III injection well Permits are required to identify the location of all known wells within the injection well's Area of Review (AOR) which penetrate the injection zone, or in the case of Class II wells operating over the fracture pressure of the formation, all known wells within the area of review that penetrate formations which may be affected by increased pressure. Under 40 CFR 146.6 the AOR may be a fixed radius of not less than one quarter (1/4) mile or a calculated zone of endangering influence. For Area Permits, a fixed width of not less than one quarter (1/4) mile for the circumscribing area may be used.

#### **Corrective Action Plan**

For wells in the AOR which are improperly sealed, completed, or abandoned, the applicant shall develop a Corrective Action Plan (CAP) consisting of the steps or modifications that are necessary to prevent movement of fluid into USDWs.

The CAP will be incorporated into the Permit as APPENDIX F and become binding on the permittee.

TABLE 4.1 lists the wells in the AOR, and shows the well type, operating status, depth, top of casing cement and whether a CAP is required for this well.

## PART V. Well Operation Requirements (40 CFR 146.23)

#### **TABLE 5.1** INJECTION ZONE PRESSURES Federal 11-33-8-18 Depth Used **Fracture** to Calculate Gradient Initial MAIP MAIP (ft) **Formation Name** (psi/ft) (psi) Green River 4.883 0.700 1,270

#### **Approved Injection Fluid**

The approved injection fluid is limited to Class II injection well fluids pursuant to 40 CFR § 144.6(b). For disposal wells injecting water brought to the surface in connection with natural gas storage operations, or conventional oil or natural gas production, the fluid may be commingled and the well used to inject other Class II wastes such as drilling fluids and spent well completion, treatment and stimulation fluid. Injection of non-exempt wastes, including unused fracturing fluids or acids, gas plant cooling tower cleaning wastes, service wastes, and vacuum truck and drum rinsate from trucks and drums transporting or containing non-exempt waste, is prohibited.

The approved injectate shall be a blend of water from the Johnson Water District pipeline and/or water from the Green River pipeline, and produced Green River Formation water from wells proximate to the Federal No. 11-33-8-18.

#### **Injection Pressure Limitation**

Injection pressure, measured at the wellhead, shall not exceed a maximum calculated to assure that the pressure used during injection does not initiate new fractures or propagate existing fractures in the confining zones adjacent to the USDWs.

The applicant submitted injection fluid density and injection zone data which was used to calculate a formation fracture pressure and to determine the maximum allowable injection pressure (MAIP), as measured at the surface, for this Permit.

TABLE 5.1 lists the fracture gradient for the injection zone and the approved MAIP, determined according to the following formula:

$$FP = [fg - (0.433 * sg)] * d$$

FP = formation fracture pressure (measured at surface)

fg = fracture gradient (from submitted data or tests)

sg = specific gravity (of injected fluid)

d = depth to top of injection zone (or top perforation)

#### **Injection Volume Limitation**

Cumulative injected fluid volume limits are set to assure that injected fluids remain within the boundary of the exempted area. Cumulative injected fluid volume is limited when injection occurs into an aquifer that has been exempted from protection as a USDW.

There shall be no limitation of cumulative volume or daily volume of authorized Class II fluid to be injected into the approved Green River Formation interval. The Permittee shall not exceed the maximum authorized surface injection pressure.

#### Mechanical Integrity (40 CFR 146.8)

An injection well has mechanical integrity if:

- 1. there is no significant leak in the casing, tubing, or packer (Part I); and
- 2. there is no significant fluid movement into a USDW through vertical channels adjacent to the injection well bore (Part II).

The Permit prohibits injection into a well which lacks mechanical integrity.

The Permit requires that the well demonstrate mechanical integrity prior to injection and periodically thereafter. A demonstration of mechanical integrity includes both internal (Part I) and external (Part II). The methods and frequency for demonstrating Part I and Part II mechanical integrity are dependent upon well-specific conditions as explained below.

Well construction and site-specific conditions dictate the following requirements for mechanical integrity (MI) demonstrations:

Internal MI will be demonstrated prior to beginning injection. Since this well is constructed with a standard casing, tubing, and packer configuration, a successful mechanical integrity test (MIT) is required to take place at least once every five (5) years. A demonstration of Part I MI is also required prior to resuming injection following any workover operation that affects the casing, tubing, or packer. Part I MI may be demonstrated by a standard tubing-casing annulus pressure test using the maximum permitted injection pressure or 1,000 psi, which ever is less, with a ten (10) percent or less pressure loss over thirty (30) minutes.

### PART VI. Monitoring, Recordkeeping and Reporting Requirements

#### Injection Well Monitoring Program

At least once a year the permittee must analyze a sample of the injected fluid for total dissolved solids (TDS), specific conductivity, pH, and specific gravity. This analysis shall be reported to EPA annually as part of the Annual Report to the Director. Any time a new source of injected fluid is added, a fluid analysis shall be made of the new source.

Instantaneous injection pressure, injection flow rate, cumulative fluid volume and TCA pressures must be observed on a weekly basis. A recording, at least once every thirty (30) days, must be made of the injection pressure, annulus pressure, monthly injection flow rate and cumulative fluid volume. This information is required to be reported annually as part of the Annual Report to the Director.

#### PART VII. Plugging and Abandonment Requirements (40 CFR 146.10)

#### Plugging and Abandonment Plan

Prior to abandonment, the well shall be plugged in a manner that isolates the injection zone and prevents movement of fluid into or between USDWs, and in accordance with any applicable

Federal, State or local law or regulation. Tubing, packer and other downhole apparatus shall be removed. Cement with additives such as accelerators and retarders that control or enhance cement properties may be used for plugs; however, volume-extending additives and gel cements are not approved for plug use. Plug placement shall be verified by tagging. Plugging gel of at least 9.2 lb/gal shall be placed between all plugs. A minimum 50 ft surface plug shall be set inside and outside of the surface casing to seal pathways for fluid migration into the subsurface. Within sixty (60) days after plugging the owner or operator shall submit Plugging Record (EPA Form 7520 13) to the Director. The Plugging Record must be certified as accurate and complete by the person responsible for the plugging operation. The plugging and abandonment plan is described in Appendix E of the Permit.

The well shall be plugged in a manner that isolates the injection zone and prevents movement of fluid into or between USDWs and in accordance with other applicable Federal, State or local law or regulation. Tubing, packers, and any downhole apparatus shall be removed. Class A, C, G, and H cements, with additives such as accelerators and retarders that control or enhance cement properties, may be used for plugs. However, volume extending additives and gel cements are not approved for plug use. Plug placement shall be verified by tagging. Plugging gel of at least 9.2 lb/gal shall be placed between all plugs. Within sixty (60) days after plugging, the owner or operator shall submit Plugging Record (EPA Form 7520-13) to the Director. The Plugging Record must be certified as accurate and complete by the person responsible for the plugging operation. At a minimum, the following plugs are required:

PLUG NO. 1: Seal Injection Zone: Set a cast iron bridge plug (CIBP) no more than fifty (50) feet above the top injection perforation. Place at least twenty (20) feet of cement plug on top of the CIBP.

PLUG NO. 2: Seal Mahogany Shale and Trona intervals: Squeeze a cement plug on the backside of the 5-1/2 inch casing across the Trona Zone and the Mahogany Shale approximately 3,000 feet to 3,155 feet (unless pre-existing backside cement precludes cement-squeezing this interval) followed by a minimum 155-foot balanced cement plug inside the 5-1/2 inch casing across the Trona Zone and the Mahogany Shale, approximately 3,000 feet to 3,155 feet.

PLUG NO. 3: Seal USDWs: Squeeze a cement plug (1,450 feet - 1,570 feet) on the backside of the 5-1/2 inch casing across the base of the Uinta formation (unless pre-existing backside cement precludes cement-squeezing this interval), followed by a minimum 120-foot (1,450 feet - 1,570 feet) balanced cement plug.

PLUG NO.4: Seal Surface: Set a Class "G" cement plug within the 5-1/2 inch casing to 375 feet and up the 5-1/2 inch by 8-5/8 inch casings annulus to the surface.

#### PART VIII. Financial Responsibility (40 CFR 144.52)

#### **Demonstration of Financial Responsibility**

The permittee is required to maintain financial responsibility and resources to close, plug, and abandon the underground injection operation in a manner prescribed by the Director. The permittee shall show evidence of such financial responsibility to the Director by the submission of a surety bond, or other adequate assurance such as financial statements or other materials acceptable to the Director. The Regional Administrator may, on a periodic basis, require the holder of a lifetime permit to submit a revised estimate of the resources needed to plug and abandon the well to reflect inflation of such costs, and a revised demonstration of financial responsibility if necessary. Initially, the operator has chosen to demonstrate financial responsibility with:

A July 24, 2009 demonstration of Financial Responsibility in the amount of \$59,344 has been provided.

The Director may revise the amount required, and may require the Permittee to obtain and provide updated estimates of plugging and abandonment costs according to the approved Plugging and Abandonment Plan.

Financial Statement, received May 16, 2008

Evidence of continuing financial responsibility is required to be submitted to the Director annually.

#### STATE OF UTAH

DEPARTMENT OF NATURAL RESOURCES 5. LEASE DESIGNATION AND SERIAL NUMBER: USA UTU-65969 DIVISION OF OIL, GAS AND MINING

	<u> </u>		0011 010 00707
SUNDRY	ORTS ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:	
• •	ill new wells, significantly deepen existing wells be al laterals. Use APPLICATION FOR PERMIT TO		7. UNIT or CA AGREEMENT NAME: GMBU
1. TYPE OF WELL:	8. WELL NAME and NUMBER;		
OIL WELL	FEDERAL 11-33-8-18		
2. NAME OF OPERATOR:	9. API NUMBER:		
NEWFIELD PRODUCTION COM	ID A NIV		4304735972
3. ADDRESS OF OPERATOR:	II AIVI	PHONE NUMBER	10. FIELD AND POOL, OR WILDCAT:
Route 3 Box 3630	CITY Myton STATE UT	ZIP 84052 435.646.3721	MONUMENT BUTTE
4. LOCATION OF WELL:	GIT MAYON STATE OI	211 04032 433.040.3121	MONEMENT BOTTE
FOOTAGES AT SURFACE: 2131 FSL 2	2079 FWL		COUNTY: UINTAH
OTR/OTR. SECTION, TOWNSHIP, RANGE.	MERIDIAN: NESW, 33, T8S, R18E		STATE: UT
11. CHECK APPROI	PRIATE BOXES TO INDICATI	E NATURE OF NOTICE, REPO	ORT, OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
☐ NOTICE OF INTENT	ACIDIZE	DEEPEN	REPERFORATE CURRENT FORMATION
(Submit in Duplicate)	ALTER CASING	FRACTURE TREAT	SIDETRACK TO REPAIR WELL
	CASING REPAIR	NEW CONSTRUCTION	TEMPORARITLY ABANDON
Approximate date work will	1=	=	=
	CHANGE TO PREVIOUS PLANS	OPERATOR CHANGE	TUBING REPAIR
	CHANGE TUBING	PLUG AND ABANDON	☐ VENT OR FLAIR
SUBSEQUENT REPORT	CHANGE WELL NAME	PLUG BACK	WATER DISPOSAL
(Submit Original Form Only)	X CHANGE WELL STATUS	PRODUCTION (START/STOP)	WATER SHUT-OFF
Date of Work Completion:	1=		<u> </u>
0.1/0.100.10	COMMINGLE PRODUCING FORMATIONS	RECLAMATION OF WELL SITE	OTHER -
04/05/2010	X CONVERT WELL TYPE	RECOMPLETE - DIFFERENT FORMATION	
12. DESCRIBE PROPOSED OR CO	OMPLETED OPERATIONS. Clearly show	all pertinent details including dates, depths, v	olumes, etc.
On 04/02/2010 Jason Dear casing was pressured up to	o 1380 psig and charted for 30 minu	to an injection well on 03/29/2010. oncerning the initial MIT on the abovites with no pressure loss. The well tan EPA representative available to	was not injecting during the test.
EPA# UT22151-08472	API# 43-047-35972		
		Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY	
		FOH HECOUR OUT	
NAME (PLEASE PRINT) Lucy Chavez-N	Vaupoto	TITLE Administrative Ass	istant
SIGNATURE Res.	Dy 1822	DATE_ 04/05/2010	

(This space for State use only)

**RECEIVED** APR 08 2010

FORM 3160 (August 200

# **UNITED STATES**

FORM APPROVED OMB No. 1004-0137

BUREAU OF LAND MANAGEMENT				Expires: July 31,2010		
SHIND	Y NOTICES AND REPO			5. Lease Serial No	).	
Do not use	this form for proposals to	drill or to re-enter an	,	USA UTU-6596	9	
abandoned v	vell. Use Form 3160-3 (AP	D) for such proposals		6. If Indian, Allotte	ee or Tribe Name.	
SUBMIT I						
SODIMIT	ľ	7. If Unit or CA/A	greement, Name and/or			
1. Type of Well				GMBU		
Oil Well Gas Well		8. Well Name and	No.			
2. Name of Operator				FEDERAL 11-33-8-18		
NEWFIELD PRODUCTION C  3a. Address Route 3 Box 3630	OMPANY	3b. Phone (include are		9. API Well No.		
Myton, UT 84052		3b. Phone <i>(include are</i> 435.646.3721	´ L	4304735972	or Exploratory Area	
	4. Location of Well (Footage, Sec., T., R., M., or Survey Description)					
2131 FSL 2079 FWL		,	T.	MONUMENT B 11. County or Paris		
NESW Section 33 T8S R18E			ŀ			
12 OUT O	I A DDD ODDI A EE D OV (E)	T) TO DIVINI ( ) TO S		UINTAH, UT		
12. CHEC	K APPROPRIATE BOX(ES	S) TO INIDICATE NA	TURE OF NO	TICE, OR OT	HER DATA	
TYPE OF SUBMISSION		TYPI	E OF ACTION			
<b>D</b>	☐ Acidize	☐ Déepen	Production	(Start/Resume)	☐ Water Shut-Off	
Notice of Intent	Alter Casing	Fracture Treat	Reclamation	•	☐ Well Integrity	
☑ Subsequent Report	Casing Repair	New Construction	Recomplete	:	Other	
Final Abandonment	Change Plans	Plug & Abandon	Temporarily	y Abandon	Change Status	
- Final Abandonment	☑ Convert to Injector	Plug Back	Water Dispe	osal		
On 04/02/2010 Jason De the casing was pressure	en converted from a producir eardorff with the EPA was co d up to 1380 psig and charte ssure was 0 psig during the f API# 43-047-35972	ontacted concerning the ed for 30 minutes with r	initial MIT on to no pressure los	the above listed s. The well wa	s not injecting during	
I hereby certify that the foregoing is correct (Printed/ Typed)	s true and	Title				
Lucy Chavez-Naupoto		Administrative A	Assistant			
Signature	-1/2	Date				
They Co	THIS SDACE FOR	04/05/2010	TE OFFICE	LIGIP		
	i nis space fui	R FEDERAL OR STA	ALE OFFICE	USE	- Committee of the Comm	
Approved by		Title		Date		
Conditions of approval, if any, are attach	ed. Approval of this notice does not wa	urrant or		i Date		
certify that the applicant holds legal or en which would entitle the applicant to cond		et lease Office				

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious and fraudulent statements or representations as to any matter within its jurisdiction

(Instructions on page 2)

# Mechanical Integrity Test Casing or Annulus Pressure Mechanical Integrity Test U.S. Environmental Protection Agency Underground Injection Control Program

999 18th Street, Suite 500 Denver, CO 80202-2466

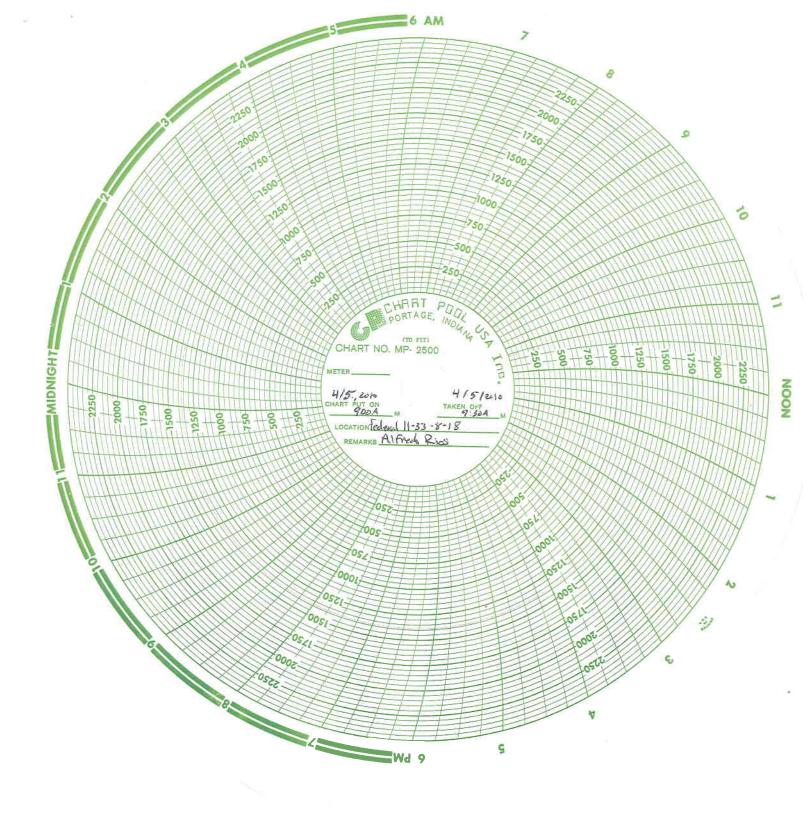
EPA Witness: Date: 4/5/2010  Test conducted by: fliftedo Rios  Others present:						
Well Name: Federa   11-33-8-18 Type: ER SWD Status: AC TA UC  Field: Monument Butte  Location: 11-33-8-18 Sec: 33 T 8 N (S) R 18 B/W County: Uintah State: Utah  Operator: Alfred Rios  Last MIT: / / Maximum Allowable Pressure: PSIG						
Is this a regularly scheduled test?  [ ] Yes [ X ] No Initial test for permit?  [ X ] Yes [ ] No Test after well rework?  [ ] Yes [ X ] No Well injecting during test?  [ ] Yes [ X ] No If Yes, rate:						
MIT DATA TABLE	Test #1		Test #2	Test #3		
TUBING	PRESSURE		_			
Initial Pressure	Ð	psig	psig	psig		
End of test pressure	0	psig	psig	psig		
CASING / TUBING	ANNULUS		PRESSURE			
0 minutes	1380	psig	psig	psig		
5 minutes	1380	psig	psig	psig		
10 minutes	1380	psig	psig	psig		
15 minutes	1380	psig	psig	psig		
20 minutes	1380	psig	psig	psig		
25 minutes	1380	psig	psig	psig		
30 minutes	1380	psig	psig	psig		
minutes		psig	psig	psig		
minutes		psig	psig	psig		
RESULT	[.] Pass	[ ]Fail	[ ] Pass [ ]Fail	Pass   Fail		

Does the annulus pressure build back up after the test? [ ] Yes [X] No

### MECHANICAL INTEGRITY PRESSURE TEST

Additional comments for mechanical integrity pressure test, such as volume of fluid added to annulus and bled back at end of test, reason for failing test (casing head leak, tubing leak, other), etc.:

	<del></del>
Signature of Witness:	<del>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</del>



#### **Daily Activity Report**

Format For Sundry FEDERAL 11-33-8-18 1/1/2010 To 5/30/2010

3/26/2010 Day: 2

Conversion

WWS #7 on 3/26/2010 - TOH W/ production tbg. Start TIH W/ packer & injection string. - RU HO trk & circulate 100 BW dn tbg @ 250°F. ND wellhead & release TA @ 5888'. NU BOP. TOH & talley production tbg. Break each connection, clean & inspect pins and apply Liquid O-ring to pins. LD btm 35 jts & BHA. Reflushed tbg twice more on TOH due to waxxy ID. MU & TIH W/ new Weatherford 5 1/2" Arrowset 1-X packer (W/ wicker slips & W.L. re-entry guide), new 2 7/8 SN and 100 jts 2 7/8 8rd 6.5# J-55 tbg. Re-torque each connection on TIH. SIFN. - MIRU Western rig #7. RU HO trk to annulus & pump 60 BW @ 250°F. RU pumping unit & unseat rod pump. Flush tbg & rods W/ 30 BW @ 250°F. Re-seat pump, soft joint rod string & strip off flow-T. Pressure up on tbg & started to circulate. Retrieve rod string & unseat pump. TOH & LD rod string and pump. Re-flushed rods twice more on TOH. SIFN. - MIRU Western rig #7. RU HO trk to annulus & pump 60 BW @ 250°F. RU pumping unit & unseat rod pump. Flush tbg & rods W/ 30 BW @ 250°F. Re-seat pump, soft joint rod string & strip off flow-T. Pressure up on tbg & started to circulate. Retrieve rod string & unseat pump. TOH & LD rod string and pump. Re-flushed rods twice more on TOH. SIFN. - RU HO trk & circulate 100 BW dn tbg @ 250°F. ND wellhead & release TA @ 5888'. NU BOP. TOH & talley production tbg. Break each connection, clean & inspect pins and apply Liquid O-ring to pins. LD btm 35 its & BHA. Reflushed tbg twice more on TOH due to waxxy ID. MU & TIH W/ new Weatherford 5 1/2" Arrowset 1-X packer (W/ wicker slips & W.L. re-entry guide), new 2 7/8 SN and 100 jts 2 7/8 8rd 6.5# J-55 tbg. Re-torque each connection on TIH. SIFN.

Daily Cost: \$0

**Cumulative Cost:** \$8,889

#### 3/29/2010 Day: 3

Conversion

WWS #7 on 3/29/2010 - TIH & test injection string. Set & test packer. RDMOSU. - RU Vaughn Energy Services & run gyro survey. RDWLT. - Con't TIH W/ injection string (complete as follows): new Weatherford 5 1/2" Arrowset 1-X packer (W/ wicker slips & W.L. re-entry guide), new 2 7/8 SN and 149 jts 2 7/8 8rd 6.5# J-55 tbg. Re-torque each connection on TIH. RU HO trk & pump 10 bbls pad. Drop standing valve & pump to SN. Pressure test tbg to 3000 psi. Bled air & re-bumped pressure several times. Final test held solid for 30 minutes. Retrieve standing valve W/ overshot on sandline. ND BOP & land tbg on flange. Mix 15 gals Multi-Chem C-6031 & 5 gals B-8850 in 70 bbls fresh water. Pump dn annulus @ 90°F. PU on tbg & set pkr W/ SN @ 4787', CE @ 4791' & EOT @ 4796'. Land tbg W/ 15,000# tension. NU wellhead. Pressure test annulus & pkr to 1500 psi. Held solid for 1 hour. RDMOSU. Well ready for MIT. - First AS-1X packer gaulled during makeup. Will have a redress charge.

**Daily Cost:** \$0

**Cumulative Cost: \$16,046** 

#### 4/5/2010 Day: 4

Conversion

Rigless on 4/5/2010 - MIT on Well - On 4/2/2010 Jason Deardorff with the EPA was contacted concerning the initial MIT on the above listed well (Federal 11-33-8-18). On 4/5/2010 the csg was pressured up to 1380 psig and charted for 30 minutes with no pressure loss. The well was not injecting during the test. The tbg pressure was 0 psig during the test. There was not an EPA representative available to witness the test. Final Report EPA# UT22151-08472 API# 43-047-35972 **Finalized** 

Daily Cost: \$0 Cumulative Cost: \$16,346

**Pertinent Files:** Go to File List



# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION 8

1595 Wynkoop Street
DENVER, CO 80202-1129
Phone 800-227-8917
http://www.epa.gov/region08

APR 2 8 2010

Ref: 8P-W-GW

# <u>CERTIFIED MAIL</u> <u>RETURN RECEIPT REQUESTED</u>

Mr. Michael Guinn District Manager Newfield Production Company Route 3 - Box 3630 Myton, UT 84052 RECEIVED MAY 0 6 2010

DIV. OF OIL, GAS & MINING

RE: Underground Injection Control (UIC)
Authorization to Commence Injection
EPA UIC Permit UT22151-08472

Federal 11-33-8-18

NESW Sec. 33-T8S-R18E

Uintah County, UT API No.: 43-047-35972

Dear Mr. Guinn:

The Environmental Protection Agency Region 8 (EPA) has received Newfield Production Company's (Newfield) April 5, 2010, letter with enclosures. The enclosed Part I (internal) Mechanical Integrity test, Well Rework Record (EPA Form 7520-12), schematic diagram, and calculated pore pressure were reviewed and approved by EPA, satisfactorily completing all Prior to Commencing Injection Requirements for UIC Permit UT22151-08472

As of the date of this letter, Newfield is authorized to commence injection into the Federal 11-33-8-18 well at a Maximum Allowable Injection Pressure (MAIP) of 1,270 psig. You may apply for a higher MAIP at a later date. Your application should be accompanied by the interpreted results of a step rate test that measures the fracture parting pressure and calculates the fracture gradient at this depth and location. Newfield must receive prior authorization from the Director to inject at pressures greater than the permitted MAIP during any test.

As of this approval, responsibility for permit compliance and enforcement is transferred to EPA's UIC Technical Enforcement Program. Therefore, please direct all monitoring and compliance correspondence to Nathan Wiser at the following address, referencing the well name and UIC Permit number on all correspondence:

Mr. Nathan Wiser U.S. EPA Region 8: 8ENF-UFO 1595 Wynkoop Street Denver, CO 80202-1129

Or, you may reach Mr. Wiser by telephone at 303-312-6211, or 1 800-227-8927, ext. 312-6211.

Please remember that it is your responsibility to be aware of and to comply with all conditions of injection well Permit UT22151-08472.

If you have questions regarding the above action, please call Emmett Schmitz at 303-312-6174 or 1-800-227-8917, ext. 312-6174.

Singerely,

Stephen S. Tuber

Assistant Regional Administrator

Office of Partnerships and Regulatory Assistance

cc: Uintah & Ouray Business Committee:

Curtis Cesspooch, Chairman Ronald Groves, Councilman Irene Cuch, Vice-Chairwoman Steven Cesspooch, Councilman Phillip Chimburas, Councilman Frances Poowegup, Councilwoman

Daniel Picard BIA - Uintah & Ouray Indian Agency

Ferron Secakuku Director, Natural Resources Ute Indian Tribe

Larry Love
Director of Energy & Minerals Dept.
Ute Indian Tribe

Gil Hunt Associate Director Utah Division of Oil, Gas, and Mining Fluid Minerals Engineering Office BLM - Vernal Office

Eric Sundberg, Regulatory Analyst Newfield Production Company

# ST

#### STATE OF UTAH

	DEPARTMENT OF 1		OURCES		_		
		ASE DESIGNATION AND SERIAL NUMBER: A UTU-65969					
SUNDRY	NOTICES AN	D REPOI	RTS ON	WELLS	6. IF	INDIAN, ALLOTTEE OR TRIBE NAME:	
Do not use this form for proposals to dri wells, or to drill horizonta	ill new wells, significantly deeper al laterals. Use APPLICATION	•		1		NIT or CA AGREEMENT NAME: IBU	
1. TYPE OF WELL: OIL WELL	OIL WELL GAS WELL OTHER						
2. NAME OF OPERATOR:	9. A	PI NUMBER:					
NEWFIELD PRODUCTION COM	<u>IPANY</u>				_	4735972	
3. ADDRESS OF OPERATOR:	<b>34</b> .	r ven	0.40.50	PHONE NUMBER	- 1	FIELD AND POOL, OR WILDCAT:	
Route 3 Box 3630  4. LOCATION OF WELL:	CITY Myton S	TATE UT	ZIP 84052	435.646.3721	GR	EATER MB UNIT	
FOOTAGES AT SURFACE: 2131 FSL 2		COI	INTY: UINTAH				
OTR/OTR. SECTION. TOWNSHIP, RANGE.	MERIDIAN: NESW, 33, T8S	s, R18E			STA	TE: UT	
CHECK APPROI	PRIATE BOXES TO	INDICATE	NATURE (	OF NOTICE, REP	ORT,	OR OTHER DATA	
TYPE OF SUBMISSION			TY	PE OF ACTION			
	ACIDIZE		DEEPEN		Г	REPERFORATE CURRENT FORMATION	
NOTICE OF INTENT (Submit in Duplicate)	ALTER CASING		FRACTURE	TREAT		SIDETRACK TO REPAIR WELL	
	CASING REPAIR		NEW CONST		-	TEMPORARITLY ABANDON	
Approximate date work will	CHANGE TO PREVIOUS PL	ANG					
05/06/2010	1=	ANS	OPERATOR		<u> </u>	TUBING REPAIR	
_	CHANGE TUBING		PLUG AND A		L	VENT OR FLAIR	
SUBSEOUENT REPORT (Submit Original Form Only)	CHANGE WELL NAME		PLUG BACK		<u>_</u>	WATER DISPOSAL	
Date of Work Completion:	CHANGE WELL STATUS		PRODUCTIO	ON (START/STOP)		WATER SHUT-OFF	
17ate of Work Completion,	COMMINGLE PRODUCING	FORMATIONS	RECLAMAT	ION OF WELL SITE	X	OTHER: - Put on Injection	
Market State of the State of th	X CONVERT WELL TYPE		RECOMPLE"	TE - DIFFERENT FORMATION			
12. DESCRIBE PROPOSED OR CO				s including dates, depths	volume	es, etc.	
The above reference well v	was put on injection at 2	2:00 PM on 05/	06/2010.				
EPA# UT22151-08472 A	DI# 43 047 35072						
E1 A# 0122131-00472 A	11 1# 45-047-55972						
NAME (PLEASE PRINT) Lucy Chavez-N	Naupoto			TITLE Administrative A	ssistant		
SIGNATURE Scar CONSTRUCT				DATE 05/06/2010			

This space for State use only

RECEIVED MAY 1 1 2010

Sundry Number: 61580 API Well Number: 43047359720000

	FORM 9				
	5.LEASE DESIGNATION AND SERIAL NUMBER UTU-65969				
SUNDR	RY NOTICES AND REPORTS ON	WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:		
	oposals to drill new wells, significantly deep reenter plugged wells, or to drill horizontal l n for such proposals.		7.UNIT or CA AGREEMENT NAME: GMBU (GRRV)		
1. TYPE OF WELL Water Injection Well			8. WELL NAME and NUMBER: FEDERAL 11-33-8-18		
2. NAME OF OPERATOR: NEWFIELD PRODUCTION CO	DMPANY		<b>9. API NUMBER:</b> 43047359720000		
3. ADDRESS OF OPERATOR: Rt 3 Box 3630 , Myton, UT		NE NUMBER:	9. FIELD and POOL or WILDCAT: 8 MILE FLAT NORTH		
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2131 FSL 2079 FWL			COUNTY: UINTAH		
QTR/QTR, SECTION, TOWNSH	HIP, RANGE, MERIDIAN: 33 Township: 08.0S Range: 18.0E Meridian:	S	STATE: UTAH		
11. CHEC	K APPROPRIATE BOXES TO INDICATE NA	ATURE OF NOTICE, REPOR	RT, OR OTHER DATA		
TYPE OF SUBMISSION		TYPE OF ACTION			
5 YR MIT perform casing was pressur no pressure loss pressure was 1	CHANGE TO PREVIOUS PLANS  CHANGE WELL STATUS  DEEPEN  OPERATOR CHANGE  PRODUCTION START OR RESUME  REPERFORATE CURRENT FORMATION  TUBING REPAIR  WATER SHUTOFF	n 03/16/2015 the for 30 minutes with the test. The tbg was not an EPA	CASING REPAIR  CHANGE WELL NAME  CONVERT WELL TYPE  NEW CONSTRUCTION  PLUG BACK  RECOMPLETE DIFFERENT FORMATION  TEMPORARY ABANDON  WATER DISPOSAL  APD EXTENSION  OTHER: 5 YR MIT  DEPths, volumes, etc.  Accepted by the Utah Division of Oil, Gas and Mining  FOR RECORD ONLY  March 24, 2015		
NAME (PLEASE PRINT) Lucy Chavez-Naupoto	<b>PHONE NUMBER</b> 435 646-4874	TITLE Water Services Technician			
SIGNATURE N/A		DATE 3/17/2015			

Sundry Number: 61580 API Well Number: 43047359720000

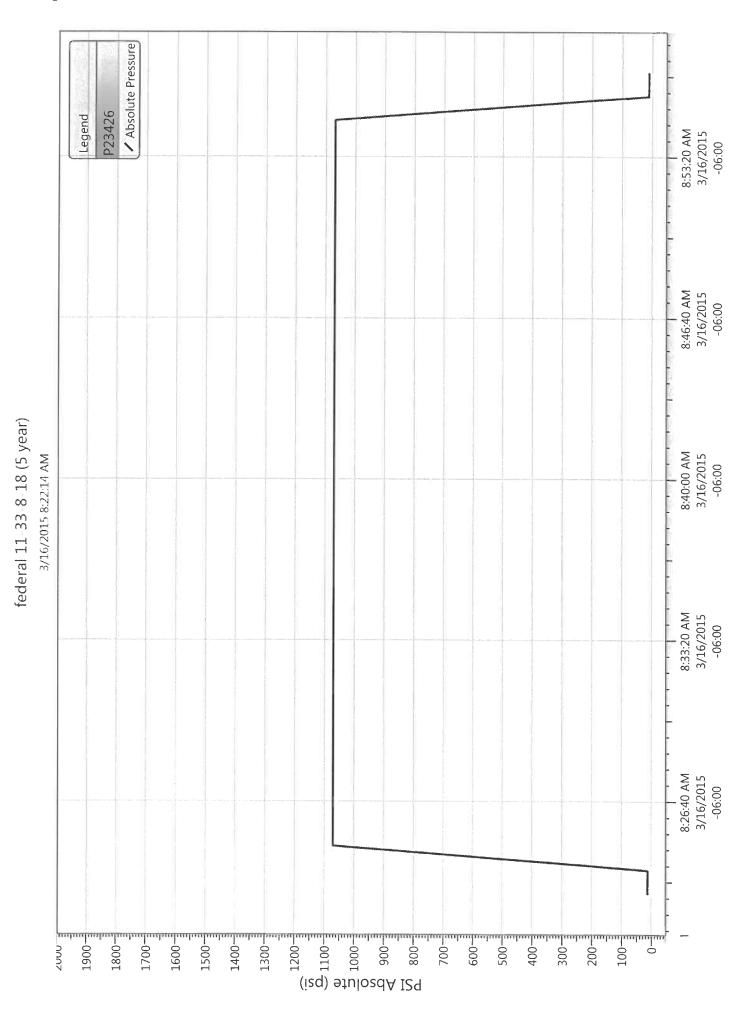
Signature of Witness:

## Mechanical Integrity Test

# Casing or Annulus Pressure Mechanical Integrity Test U.S. Environmental Protection Agency Underground Injection Control Program 999 18th Street, Suite 500 Denver, CO 80202-2466

			7 . //	
EPA Witness: Test conducted by: Others present:	Lame to a		Date: 3 1/6	175
Others present:	Latenby			
Others present:			water the same of	
Well Name: Federal	11-33-8-18		Type: FR SWD St	-0847)
Field Monument Ru	Ho			
Location: NE/SW Sec	: 33 T 8	N/S) R 18	E/W County: Vintal	State: (17
Operator: NEWPIELD	EXPLORATION		*	1
Last MIT: /	/ Ma	ximum Allow	able Pressure: 14	PSIG PSIG
Is this a regularly schedule Initial test for permit? Test after well rework? Well injecting during test?	]	] Yes [ ~	No No	7/-
			No If Yes, rate:	bpd
Pre-test casing/tubing annulu	is pressure:	0 //	346 psig	
MIT DATA TABLE	Test #1		Test #2	Test #3
TUBING	PRESSURE		3//////////////////////////////////////	
Initial Pressure	1346	psig	psig	psig
End of test pressure	1346	psig	psig	psig
CASING / TUBING	ANNULUS		PRESSURE	
0 minutes	1070	psig	psig	psig
5 minutes	1070	psig	psig	psig
10 minutes	1070	psig	psig	psig
15 minutes	1070	psig	psig	psig
20 minutes	1070	psig	psig	psig
25 minutes	1070	psig	psig	psig
30 minutes	1070	psig	psig	psig
minutes	A.	psig	psig	psig
minutes		psig	psig	psig
RESULT .	[A] Pass	[ ]Fail	[ ] Pass [ ]Fai	l [ ] Pass   ]Fail
Does the annulus pressure bu	ild back up afte	er the test ?	[ ] Yes [φ] No RITY PRESSUI	,

Sundry Number: 61580 API Well Number: 43047359720000





www.newfield.com

Schematic

43-047-25972

Well Name: Federal 11-33-8-18								
Surface Legal Lega	ocation			API/UWI Well R 43047359720000 5001	C Lease 54378	State/Province Utah	Field Name County GMBU CTB9 Uintah	
Spud Date	Rig Rel		On Production Date 2/28/2006			VD) (ftKB)	PBTD (All) (ffKB) Original Hole - 6,040.0	
Most Recen	nt Job						Toriginal rice of the second	
Job Category Testing			Primary Job Type	Secondary Job Type N/A	Job Start Date 3/	16/2015	Job End Date 3/16/2015	
TD: 6,090	0.0			Vertical - Original Hole, 9/15				
	TVD	- 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1	other ter and the			the beautiful the second	renewally street, middle application of the street	
MD (ftKB)	(ftKB)	Incl (°)	DLS (°	The state of the s	Vertical schematic	(actual)	a regularitation for the same of	
- 12.1 -								
- 324.1 -		in and	-					
- 325.1 -			-		1; Surface; 8	8 5/8 in; 8.097 ii	n; 12-325 ftKB; 312.90 ft	
					4-1; Tubing;	2 7/8; 2.441; 1	2-4,787; 4,775.40	
- 4,787.4 - 4,788.7					4-2; Pump S	Seating Nipple;	2 7/8; 2.441; 4,787-4,789; 1.10	
4,700.7					4-3; Packer;	5 1/2; 4.950; 4	,789-4,796; 7.40	
- 4,795.9	-	-	-					
- 4,882.9		100	-		Perforated;			
- 4,903.9			-		***************************************			
- 5,004.9	-		-		Perforated;	5,005-5,012; 2/2	22/2006	
- 5,012.1 - - 5,359.9								
5,391.1					Perforated;	5,360-5,391; 2/2	22/2006	
5,786.1								
5,790.0		-		1 0000 1 0000 1 0000	Perforated;	5,786-5,790; 2/2	22/2006	
5,831.0								
- 5,912.1				00000 1 000000	Perforated;	5,831-5,920; 2/2	22/2006	
5,919.9				State Control of the	Dorforated:	5,912-5,920; 2/2	22/2006	
6,040.0								
6,046.3								
6,046.9								
6,089.2								
6,089.9				<b>**</b>	2; Productio	n; 5 1/2 in; 4.95	0 in; 12-6,090 ftKB; 6,077.88 ft	

## **NEWFIELD**



#### Newfield Wellbore Diagram Data Federal 11-33-8-18

					API/UWI		Lease		
County		State/Province	е		43047359720000 Basin		Field Name		
Uintah Well Start Date		Utah			Cinal Dia Delessa Cata			GMBU CTB9 On Production Date	
1/6/20	006	Spud Date			Final Rig Release Date	Final Rig Release Date		/2006	
Original KB Elevation (ft) G 4,915	round Elevation (ft) 4,90	Total Depth (1	ftKB)	6,090.0		Total Depth All (TVD) (ftKB)		PBTD (All) (ftKB) Original Hole - 6,040.0	
Casing Strings	4,90	3		0,090.0			Original Flore - 0,040	0.0	
Csg D	es	Run	Date	OD (in)	ID (in)	Wt/Len (lb/ft)	Grade	Set Depth (ftKB)	
Surface		1/6/2006		8 5/8	8.097	24.00		325	
Production		2/1/2006		5 1/2	4.950	15.50	J-55	6,090	
Cement		•						T. P. C. Dware	
String: Surface, 325f	tKB 1/11/2006								
Cementing Company BJ Services Company	,				Top Depth (ftKB) 12.0	Bottom Depth (ftKB) 325.0	Full Return?	Vol Cement Ret (bbl)	
Fluid Description	/				Fluid Type	Amount (sacks)	Class	Estimated Top (ftKB)	
2% CaCL2 + 1/4#/sk (					Lead	160	G	12.0	
String: Production, 6 Cementing Company	,090ftKB 2/1/20	06			Top Depth (ftKB)	Bottom Depth (ftKB)	Full Return?	Vol Cement Ret (bbl)	
BJ Services Company	/				132.0		The second secon	Voi Cement Ret (bbi)	
Fluid Description	0.005 - 0.0		. 41410.1.1	0 " 51 1	Fluid Type	Amount (sacks)	Class	Estimated Top (ftKB)	
10% gel + 3 % KCL,	3#'S /SK USE + 21	sk/kolseal	+ 1/4#'S/Sk	Cello Flake	Lead Fluid Type	Amount (sacks)	Premlite ii	132.0 Estimated Top (ftKB)	
2% Gel + 3% KCL, .59	%EC1,1/4# sk C.	F. 2% gel. 3	% SM mix	ed	Tail	, ,	50/50 poz	2,500.0	
Tubing Strings									
Tubing Description Tubing					Run Date 3/25	/2010	Set Depth (ftKB) 4,796.		
Item Des	Jts	OD (in)	ID (in)	Wt (lb/ft)	Grade	Len (ft)	Top (ftKB)	Btm (flKB)	
Tubing	14		2.441	6.50	J-55	4,775.40	12.1	4,787.5	
Pump Seating Nipple		1 2 7/8	2.441			1.10	4,787.5	4,788.6	
Packer		1 5 1/2	4.950			7.40	4,788.6	4,796.0	
Rod Strings Rod Description					Run Date		Set Depth (ftKB)		
Item Des	Jts	T OD	(in)	Wt (lb/ft)	Grade	Len (ft)	Top (ftKB)	Btm (ftKB)	
				, ,					
Perforation Intervals								_	
Stage# 6 D2, Original	Zone I Hole	Top (	ftKB) 4,883	Btm (ftKB) 4,904	Shot Dens (shots/ft)	Phasing (°)	Nom Hole Dia (in)	Date 8/5/2008	
1 CP5, Origin			5,005	5,012	4			2/22/2006	
2 CP4, Original Hole			5,360	5,391	4			2/22/2006	
3 CP3, Original Hole			5.786	5,790	4			2/22/2006	
4 A1,A3, Original Hole			5,831	5,920	4			2/22/2006	
5 C, Original Hole			5,912	5,920	4			2/22/2006	
Stimulations & Treat	ments			I					
Stage#	ISIP (psi)		ient (psi/ft)	Max Rate (bbl/min)	Max PSI (psi)	Total Clean Vol (bbl)	Total Slurry Vol (bbi)	Vol Recov (bbl)	
2	3,28	1	1.04	24.9	2,600				
3	1,550 1,960		0.7	25.2					
4	1,96		0.83	14.6 23.1	1,760 2,036				
Proppant	1,33	31	0.04	23.1	2,030	L			
	Total Prop Vol Pumped			DMI TO THE TOTAL T					
Stage#	(lb)		Mhite Sar	nd 169443 lb	Total Ad	ld Amount			
-									
1	Proppant White Sand 34856 lb Proppant White Sand 17076 lb								
1		Proposant	Mhite Sar	nd 17076 lb					
1 3 4				nd 17076 lb nd 80448 lb					